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TEXTERNIC BULLETIN

Vol. 46

May 17, 1934

No. 12

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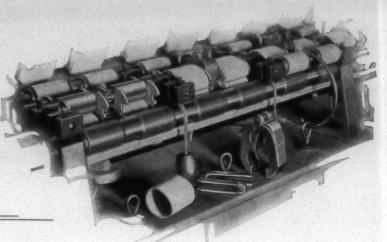
E. H. JACOBS MFG. CO., Danielson, Conn.

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- Read in the May issue of the magazine COTTON what has been accomplished . . . what can be done in your mill, on Whitin-Casablancas roving..

WHITIN MACHINE WORKS WHITIN

WHITINSVILLE MASS



Vol. 46-No. 12

May 17, 1933

Master Mechanics Meet In Charlotte

THE Spring Meeting of the Master Mechanics' Division of the Southern Textile Association was held in the Chamber of Commerce Auditorium, Charlotte, N. C., on Saturday, May 12th.

The meeting was called to order by the Chairman, E. E. Edmiston, master mechanic of the Mooresville Cotton Mills, Mooresville, N. C., and the invocation was said by W. W. Evans, of Mooresville.

The chairman announced that H. H. Iler, President of the Southern Textile Association, who was to deliver the address of welcome, was absent because of illness.

L. W. Misenheimer, master mechanic at the Southern Bleachery and Print Works, Taylors, S. C., was elected chairman, succeeding E. E. Edmiston, whose term expired at this meeting.

Two technical papers were presented at the meeting. E. M. Williams, of the Clinchfield Coal Company, spoke on "The Efficient Use of Fuel," and R. W. Drake, of the Rockwood Drive Company, spoke on "Short Center Drives."

The paper by Mr. Williams follows:

The Efficient Use of Fuel

I was requested to talk here today on the efficient use of fuel in plants of the type located in this district. In the future, unless otherwise specified, the term "fuel" means coal, because coal is the principal fuel used in this section. I decided to use three examples of steam plants like ones I have visited, and after each description it is my hope to pass on some information that might be of benefit to you in your own plant.

Example No. 1—Small Horizontal Return Tubular Boiler, hand-fired, rated 150 Boiler Horsepower and carries 125 lbs. pressure. Steam from a plant of this type is used for heating during the heating season and process steam the year around. We'll say this plant burns about one car of coal per week during six months of the year and one car every two weeks during the other six months, or about 37 50-ton cars of coal during the year. This coal, delivered, will cost about \$4.50 per ton, or a total of \$8,325 per year.

BOILER LAYOUT

Getting back to the main subject—you will find this 72"-diameter boiler set up over the grates 24" to 36". The bridge wall is near the boiler, and there is no combustion chamber at all behind the bridge wall, and the

management always wonders why there is so much smoke coming from their smoke stacks. If we would stop for one minute to think, we would see the reason for this smoke. As an illustration, we shall consider the temperature in the fire to be around 2,000° F. The temperature of water in the boiler is only 353° F. with 125 lbs. steam pressure, so when the flame from the fuel touches the boiler it is chilled below the ignition temperature of the combustible gases, and, instead of burning and giving up its heat, it is carried out of the stack as smoke.

AIR LEAKS

Next, we find cracks around the front of the furnace and around the fire-doors, but we do not worry about that so much until we start to analyze the escaping flue gases and to measuring the temperature of the flue gases when they leave the heating surfaces. After having obtained the analysis of the flue gases and finding they show an average of 8% CO2, 12% O2 with no CO, the temperature of the escaping gases being 600° F., we start looking around and find that there are air leaks in the side and rear walls. Then we have the fireman apply the smoke test, which is to throw on some fresh coal and close the damper. The smoke then boils up through the back arch where the rear wall touches the boiler. This is one of the worst places for air leaks, due to the temperature's being too low for the excess air to aid combus-Then, too, the entering air chills the tubes and robs the boiler of the heat by forcing a large volume of gases through the boiler at a much more rapid rate than it would have to go if this excess air were not included in the gases. This excess air also materially reduces the draft. In most cases we do not have to worry about the draft being reduced, because the outlet damper is wide open at all times.

Scientists tell us that the molecules of gas not only travel forward through the boiler, but that they travel cross-wise between the heating surface at a very rapid rate, and each time they strike the heating surface they impart some of their heat, and that is the reason why we should let them travel through the gas passages as slowly as possible.

PREVENTABLE FUEL LOSS

In going back a little, to the CO2 we found and the flue-gas temperature, which were 8% CO2 and 600° F., this would give us 158% excess air, with the efficiency of the boiler, furnace and grates at about 62%, and a pre-

A. V. King, in the third edition of the book put out by the Cochrane Corporation, says that for 8% CO2 there is a loss of \$400 for each 1,000 tons of coal burned, considering delivered cost to be \$4.50 per ton. With 11% CO2 this same loss would be only \$120, or a decrease of \$280 per 1,000 tons of coal; and for the example we have assumed, using 1,850 tons, there would be a saving of \$518 a year. This is assuming a condition that can be lived up to in a plant of the following description.

The boiler should be set not less than 48" above the grates; the fire-doors should fit tightly and have means to let in only what air is desired through the openings in the doors; there should be no air leaks in the side or rear walls; the bridge wall should be at least 24" from the boiler, and the combustion chamber should extend from the boiler down to the level of the ash pit all the way to the rear of the furnace. I would also install a mixing arch approximately 36" behind the bridge wall, so that the gases would strike the arch and thoroughly mix. At the same time, this arch would be incandescent, which would materially help the combustion by keeping the temperature high at the time the stratified gases were broken up and thoroughly mixed.

INSTRUMENTS NEEDED

There should be installed a draft gauge that would show the over-fire draft, and a recording flue-gas thermometer should also be installed. Then the draft should be carried on the furnace so that you could burn about 15 lbs. coal per hour per square foot of grate area, and the depth of the fire would depend on the temperature of the flue gases. The fire thickness giving you the lowest temperature of the flue gas would be the one to carry. You should also determine what should be the highest temperature of the flue gas according to the rating you were operating the boiler, and see that it stays below that temperature. High reading of the flue-gas thermometer means only about four things: high rating; tubes dirty inside or outside; delayed combustion; and excess air. The last one is the most likely of any. Soot on the outside and scale on the inside of the tubes are very common causes of high flue-gas temperature.

Before leaving this first example, I want to say that I know of some hand-fired plants that are operating daily

with an average CO2 of from 12 to 14%, and their efficiency is over 70%.

EXAMPLE No. 2 — This boiler plant consists of either Horizontal Return Tubular or Water Tube Boilers, either type rated at 250 Boiler Horsepower, fired with a single retort stoker of the under-feed type, or an overfeed stoker.

FAULTS IN FIRING

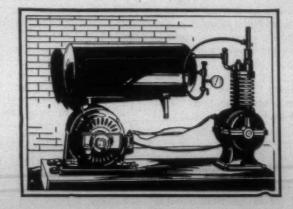
In a plant of this kind you will often find the regulator to the outlet damper not working, or, when it is working, the draft gauges are not working, so that it may be they are carrying entirely too much over-fire draft when the damper is open. In so many of these plants they depend on the forced-draft fan to regulate the amount of steam the boiler generates. By closing off the forced-draft fan the fire will be retarded, but at the same time the draft over the fire will increase to about three times what it should be, and that vacuum will continue to draw in cold air through any leaks it may find in the furnace setting. The forced-draft fan should never be entirely closed down, but it should be partially closed, and the outlet damper should be closed down accordingly, so as to keep the same draft over the fire at all times. Another reason why the forced-draft fan should not be entirely cut off is that when the fan is off the grates are liable to overheat, due to there being no cooling effect on them, as there is when the air is passing through, and, at the same time, this condition is liable to cause excessive clinkering of the ash on the grates. The proper condition is to have the forced-draft fan reduced to whatever dedegree is necessary to take care of the variation in steam demand, and have the outlet damper closed proportion-

In these small stoker furnaces I have occasionally analyzed the flue gases and found the CO2 low when, at the same time, the fire was blowing out of the fire-doors. After reducing the forced draft so that we would look in the firebox, we would find holes through the firebed and even be able to see the grates. (I often wonder to myself, then, which is the more efficient; to have a boiler on natural draft and have holes in the fire, or to have it on forced draft and have holes in the fire.) Getting back to the subject, after we would have these holes covered up and kept that way by proper attention to the fire, it would be possible to raise the percentage of CO2 from around 9% to 13%. This would be a saving of 6% of the total fuel used.

COMBUSTION TESTS

I recently visited a boiler plant in a neighboring State and, after talking to the engineer in charge for some time, I suggested that we make a combustion test to see just what they were getting out of the fuel they were using. I analyzed the gases and found that they had about 6% CO2, which means they were carrying 245% excess air. I took two or three more samples and found them all to agree, and then I asked the fireman what he was doing. He replied that they always burned their fires like that during that part of the day, to burn up all of the coke on the dump grates. I took a look into the fire and found the fire was so thin that I could see the tuyeres. I asked the engineer why they did not open the air passage under the dump grates and let the fire remain

up to the required depth, but at the same time burn off most of the coke from the dump grate. He replied that he wanted all the coke out of the ashes. He then asked me to go with him to inspect the ash pile. The ash pile certainly did not contain much coke, but neither he nor the management was able to measure how much more they were losing by trying to get just every bit of the coke burned up. I believe this was a plant where they were spending 25 cents to save 5 cents. The average



evaporation at this plant is near 7 lbs. of water per pound of coal, as fired.
Should Weigh Coal

With the type of boiler plant assumed in this second example, I believe they should have scales to weigh their coal accurately and meters to measure the water to the boilers, or the steam from them. I also think they should have draft gauges showing the furnace draft, smoke-box or draft in last pass and pressure under the fire. I would also recommend a meter showing the steam flow-air blow, or a recording CO2 meter. It might not be possible to have all these meters on boilers of this size, but I do not think a boiler larger than 200 B.P.H. should be

operated without knowing how much excess air you are using at all times. Excess air is the biggest evil we have to contend with in economical boiler operation.

In the regulation of over-the-fire draft, I would try to keep this reading between .10" to .15" H2O. This is about as low as you can operate this draft with plain refractory walls. The pressure you carry under the fire will depend on the load, on the thickness of the fire, and

on the type or coal you are burning.

At this time may I give a word of warning? If you make any changes in your fuel-burning equipment, be certain you can burn as many different sizes and grades of coal as possible, because if your equipment requires a special grade and special size of coal you are going to be penalized by having to buy a premium coal.

500 H.P. Boilers

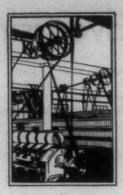
Example No. 3—This plant will have boilers rated at 500 B.H.P., or more, and it will be fired with either a multiple-retort stoker or with powdered coal.

In plants of this type it is found that the management realize their cost and what can be saved by efficient operation, so usually they have an engineer in charge who devotes all his time to looking after the upkeep of this equipment and seeing that it is operated at the most efficient point at all times. In the first place, this type of plant is practically always equipped with good housekeeping machinery—that is, meters of all kinds.

MULTIPLE-RETORT-STOKER FIRED BOILERS

We shall now consider multiple-retort stoker-fired boilers. In this type of stoker we are able to distribute the coal to any place within the furnace we wish, and we are able to control the speed of the fuel as it is moved back toward the dump grates or clinker grinders. With this type of stoker, of the latest design, we are able to carry a fire that will give us a continuous CO2 of from 12.5 to 14%, and even higher if we desire it. They now have balanced air-flow, coal-flow. In this arrangement, the air chamber under the fire is cut into sections and so arranged that, when thin places show up in the fire and an excess of air starts going through that part of the firebed, this action reduces the pressure under the fire by allowing the air to go through without much resistance, and then the air to this section is reduced and it is applied to a heavier section of the fire. You will readily appreciate the value of this action. In tests made where they have arrangements like this, it has increased the efficiency as much as 2% and the rating as much as 30%. I do not hesitate to predict that in the near future we shall have this balanced air-flow, coal-flow on small stokers.

It would not be doing the stoker manufacturer justice unless I mentioned some of the things being done to save the unburned coke from going into the ash hopper and, at the same time, keeping the excess air to a minimum.



Some types of stokers have just a plain dump grate, which is dumped in the conventional way, with air pressure to be applied under this grate while burning the fuel off previous to dumping. Then there is the type that has two sections to the dump grate, which has the air pressure to put under the grate to burn down with. Then, when you start to dump the grate, the front dump plate (the one nearest the tuyeres) is raised up some, so as to hold the coke and fire from sliding off into the ash hoppers when the other plate is released. After all the ashes are cleaned off this plate, and it is replaced, and this front plate is lowered to its normal position, the fire and coke will

resume their natural course. There is another improvement that is very good; that is the clinker grinder that is located down in a pit, the ashes going directly into it as they are worked forward. When it is full, the clinker grinders are started, and this accumulation of ashes and clinkers is ground down in the ash pit, just so no live fire will reach the grinders.

POWDERED COAL

We shall now consider powdered coal. This method of burning fuel is going steadily forward, and the progress being made is due in a measure to the wonderful research that has been done and is being done in this field. When burning powdered coal, we are able to mechanically mix the air with the fuel and to put in the furnace only what excess air we desire.

We have two types of systems of firing powdered coal; one is the bin-and-storage system, which means that we pulverize our fuel with large pulverizers and store it until we are ready to use it. The other system is the unit system; that is, we have pulverizers of ample fuel-grinding capacity to furnish fuel enough to take care of the peak loads that we might have. The fuel is fired directly after pulverizing in this system. I shall not attempt to enter into a discussion of the relative merits of these two systems. I will say that I believe both systems have a place in the field of fuel burning. The places where powdered fuel has been used most successfully are plants that were designed in the beginning for that method of burning fuel, although there are some plants that have been redesigned for powdered fuel that have been successful economically.

ECONOMY IN BURNING COAL

We begin to wonder, now, after all this talk, just what are the best lines to follow for burning fuel in individual plants for the greatest economy. The old motto still holds good: "Keep the boiler and furnace clean and tight." Very few industrial plants clean the soot from their boiler tubes often enough. If at any time you can reduce the temperature of the escaping flue gas 50° F. by blowing tubes, then is the time to blow them. As an insulator, soot is five times as effective as fine asbestos. It has been proved that a 1/32" thickness of soot on boiler tubes will cause a fuel loss of 91/2%, and this loss is increased to 69% when the soot accumulation averages 3/16" in thickness. I would be willing to say that a good many of the "old-timers" here today have seen boiler tubes on which the soot would be 3/16 of an inch

While complete combustion should always be striven for, complete combustion is by no means synonymous with economical combustion. Complete combustion with low or moderately high CO2 generally is much more (Continued on Page 8)

Mills Aid Advertising Campaign

The Cotton-Textile Institute announced that the following mills, selling agents, converters and other firms have voluntarily contributed to the Institute's general advertising and educational activities, including the promotion of National Cotton Week. This effort is in furtherance of the New Uses activities of the Institute in extending the demand for cotton in both new and established uses:

Abbeville Cotton Mills, Aberfoyle Mfg. Co., Alabama Mills Co., American Printing Co., American Thread Co., Amoskeag Mfg. Co., Anchor Duck Mills, Anderson, Clayton & Co., Androscoggin Mills, Aragon-Baldwin Cotton Mills, Arcade Cotton Mills, Aspinook Co., Association of Cotton Textile Merchants of New York, Avondale Mills.

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Louis F. Hall & Co., Hampton Co., Hampton Spinning Co., Hartsville Cotton Mill, Hathaway Mfg. Co., Heineman & Seidman, Highland Cotton Mills, Hill Mfg. Co.

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(Continued on Page 27)

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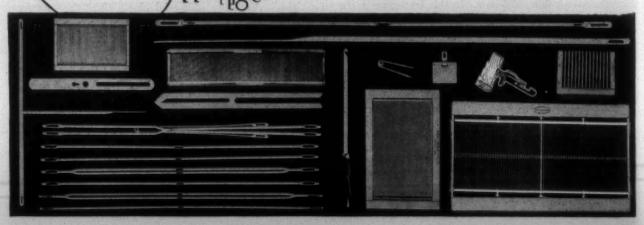
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Many of your Looms were idle for considerable time during the depression. For a year they have been running full tilt—perhaps Night and Day under Two or More Loomfixers.

Wouldn't You Like to Know What Has Happened to Them? What Doctoring They Need?



Let's Talk It Over

DRAPER CORPORATION

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Master Mechanics Meet in Charlotte

(Continued from Page 5)

wasteful than incomplete combustion with a high percentage of CO2 accompanied by a moderate percentage of CO. The next question is: How high is the most economical point to carry the CO2? It must be determined for each individual furnace and for each individual fuel used in that furnace. Then we must know what CO2 the refractories in the furnace will stand. Temperatures in furnaces increase in proportion to the increase in the percentage of CO2. The question is often raised as to what draft should be carried with our equipment. The draft that goes with the best percentage of CO2 when the load is being satisfactorily met is the draft to be used.

Here is a paragraph, written by an engineer, that I often think about when I have visited a steam plant where they are wasting quite a bit of their fuel and where they have no meters except a steam-pressure gauge: "No man in charge of burning coal should be charged with indifference, nor need he be possessed of a guilty conscience when he goes home at night, if he does not have the equipment necessary to determine whether or not he has wasted five or ten tons of coal that day."

TYPES OF COAL

I am going to mention to you at this time just a little about coal. In this section of the country we are blessed by having the best coal of all types. This may sound like a broad statement, but if any of you gentlemen are ever in other sections of this country—say west of the Mississippi River—just notice the coals with which they have to contend.

Coals have three main impurities in them, which are as follows: Moisture, ash and oxygen. The Bureau of Mines says that coal with 15% ash and 5% oxygen will give the same efficiency as coal with 15% oxygen and 5% ash. Oxygen is something we can not see in the coal, and it is also something not shown in the ordinary analysis; but it is there, all the same, and it amounts to just as much as ash, only you do not have to clean it out of the dump pits. I am going to leave the further discussian of coal to another day.

In conclusion, I want to say that the men in charge of steam plants in this section are men who try to get the best out of their plants regardless of whether they have the most efficient plants or not. Never in my seven years of traveling in this section have I called at a steam plant that I have not been accorded fair treatment, and the men in charge have always co-operated with me.

Short Center Drives

In his remarks on Short Center Drives, Mr. Drake said:

The subject of short center drives is a broad one, and I can not go into it fully. In the beginning, I am going to say something about the difficulties that are met. I do not mean to say that all short center drives give trouble, but I am going to try to give you the limitations. That is what you want to know for each drive; you want to know the limitations of each drive for the job.

I do not have to say much about the trend from long center to short center drives. Each of us knows that it becomes increasingly difficult, as plants progress, to find room for the typical long center drive, particularly as that that drive is used for smaller and smaller groups of machines or for individual machines. It becomes more and more difficult to get the typical 10 or 15-foot centers, particularly with individual machines. The only way in which we can get a 10-foot drive with individual machines is, usually, straight up; and we know that a drive

straight up is not advantageous. You get the slack, and it all falls under the bottom pulley, where it gives trouble.

Everybody here, I suppose, is interested in the textile industry, and the point we want to consider is the characteristics of the short center drive necessary for the textile mill. The first I shall mentioned is constant and invariable speed.

LOW BELT SLIP

As I think of the mill at large, it seems to me that low slip is the most necessary characteristic. If we can not have the absolute elimination of slip, then a constant slip, a slip that is not going to get worse. A 1% slip is all right, if you know it is going to be always 1%, because you can proportion your pulleys for that.

CONSTANT AND VARIABLE SPEEDS

All mills realize that constant and invariable speed is necessary and have carefully set speeds for the different classes of machines which they believe to give an economic balance between production and maintenance costs, Other than the textile industry, I can think of none except the steel industry in which the investment is as large in comparison with the cost of direct labor for tending production machines. The fixed charges, the taxes and insurance, and the maintenance expense are so large a proportion of the expense of working up cotton that almost more important than labor cost is keeping the output up. The machinery costs just as much, the fixed charges are just as large, if a loom is running eight or ten picks under speed than if it is up to its full speed; and you do not have to have any more girls in the weaving shed if the looms are not absolutely up to speed than if they are.

SPEED INDICATORS HELPFUL

If you are not now making such a routine inspection, try a speed indicator on each machine in your spinning and weaving rooms, or on all your machinery, for that matter. After one such check-up, the possibilities apparent led one Southern mill to make such a test regularly, with the result of increasing its production by 2%. And this increase by no means exhausts the possibilities.

MUST AVOID BREAKDOWNS

Another essential point is an absolute minimum of idle time due to breakdowns, which perhaps in your industry is second in importance to the maintenance of speed. In an industry in which I spent a great deal of time, slip was not the most important point; due to the fact that our product was made in one continuous operation, avoidance of breakdown was the most important. Our product was finished. It was as though your cotton went in at the openers and went through into the looms without stop. In textile plants, as I understand them, I would think the point of no breakdown would be second, since you can carry forward one operation while other machines are idle.

I have spoken now of the necessity for low slip and for a minimum of idle time due to breakdown. The third point I might mention is the great advantage if the necessity for maintenance labor or approaching replacement is evident to visual inspection. If you can see it as you walk by, that is fine. If you can see it by a moment's looking when the machinery is shut down, that is good. If you have to dismantle, or if it takes a fine degree of judgment to determine, or if you can not tell it until the machinery actually breaks down, that is bad.

The next requirement is that the replacement or repairs that are necessary should require but little time, and it should be possible to make them in idle time. That, I should say, is fourth.

COST OF REPAIRS

Fifth, I think, would come the cost of those repairs. Maintenance and repair should not only cause little lost time but should be inexpensive. If you have these other things, however, if you have low slip, a minimum of idle time due to breakdown, if approaching replacement is evident to casual inspection, and if repairs can be done in idle time, this point is not so essential; inexpensive maintenance is not one of the first requirements.

As I see it, those are the things that you demand from short center drives in textile mills.

In talking about what short center drives are applicable in textile mills, I decided to consider gears, gravity idlers, silent chain, multiple V-belt drives, and the Rockwood drive.

GEAR DRIVES

The gear drive, of course, was the first thing. Everybody tried the gear drive when I began, years ago. It was found that individual drive with gears was by no means universally applicable, and motors are not as rugged now as they were in those days. The first difficulty was that gear drives pounded the motor bearings loose in the heads. And not only did the bearings wear; the heads got worn, also; when you put in a new bearing you found that it was still loose. The old way to combat that was that the motor manufacturer tried to sell you a slow-speed motor, a 600-revolution motor if you wanted bearings with metal pinions—great big rugged motors. They stood up pretty well. Except in small sizes, few modern general-purpose motors of usual speeds are fitted with bearings which will give long, trouble-free service with metal pinions.

Then the rawhide pinion came in, and we pushed the speed up. Compressed cloth gradually took the place of the rawhide pinion. It has always been a mystery to me how a bundle of rags, compressed, can stand as much pressure as cast iron, but they will stand up on even such a job as an ash conveyor, where there is a lot of abrasion. We get years of service out of them.

We all know that in the development of gear short center drive the limitation has always been the bearing. Nowadays the most common way of combatting that is to mount the gear in a separate enclosure of its own, with adequate bearings, so that you can lubricate it better, coupling it to the motor by a flexible coupling and thus relieving the motor bearings of gear loads. That gets rid of the most serious limitation of gears, so that you can run the loom speed up.

Another fact which limits the applicability of direct gear drives from ordinary motors of medium and larger sizes is the relatively low pitch-line speeds possible. Thus, with a motor running 1750 R.P.M., a 3"-diameter pinion gives 1350 R.P.M. pitch-line speed, which is close to the practical limit for open-gear drives. On an 1800-revolution motor, the largest pinion you can use is 3". If you use a larger pinion, to relieve the bearing pressure, you cut down your speed. (Of course, the smaller the pinion is, the heavier the pressure on the bearing and the hotter they run; and the smaller your pinion is, the higher your speed.) With the enclosed gear, where you are running it in oil, you can run those speeds up right high.

The gear drive has its place; it has fairly narrow applicability, but it is a good drive.

FLAT BELT DRIVE WITH IDLERS

The next drive we shall consider is the flat belt with an idler. The gravity idler was a great step forward in applying flat belting to short center drives. Unlike the open drive on either long or short centers, it assured a



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certain minimum tension in spite of belt stretch, if decently maintained. It does not assure a uniform, constant tension. The overload capacity of the drive gradually decreases as the belt stretches and the idle pulley settles lower and lower; with the idle pulley in the lower position the tension becomes very much less. However, this change is slow and evident to the most casual inspection. One of the things the idles does is to take up the slack.

With the positive and fairly adequate tension supplied by an idler, a flat belt drive will carry any load in reason, but if the periodical adjustment of idler position is neglected, the slip may be rather high. In general, the performance of an idler drive is like that of a willing horse. It will pull even unreasonable overloads, at high slips, to be sure, until it drops. In many cases where little thought is given to the matter, belting is unreasonably overloaded by means of an idler. Due to this fact, and the rather severe S bend in the belt due to the small roller pulleys set up close to the motor pulley in idlers as ordinarily marketed in this country, the idler has in manyquarters a bad name.

The idler, then, assures us of minimum tension. With the old gear short center drive, as it stretched, you found you had practically no tension on the slack side. The idler got away from that.

The overload capacity, of course, increases as the decrease in tension. The slip is high if neglected, and is a trifle higher than with the later developed short center drives. In other words, the slip will be, with a well adjusted idler drive, just above 1%. Now, that is good. There are other drives on the market, developed later, where the slip is a little over .5%.

As I have said, idler drives have a bad name in many plants: they are thought of as belt killers. There are two reasons for that. One is that in many cases very small idlers have been applied, and one reason for that is that you can get 10% more load with a small idler than with a large one, and it is a little cheaper, in some cases. Another thing that makes idler drive a belt killer is too short a distance there (illustrating on blackboard); that is, an idler drive with the belt coming off the pulley in a crown. It runs on to this pulley, that has no crown (indicating). You might think it is a good plan to put a reverse crown in the valley, but you can not do that. That puts diagonal stress on the belt, and that cuts the life of the belt down. The way to get rid of that is to leave a little space; one rule is to have the straight space in the belt the width of the belt. More is good, but you can not always get more.

Many of us have had trouble in the past because we have not realized that a 10 H.P. drive is not the drive to put on a 10 H.P. motor. The 10-horse motor, the induction motor which most of us use (a square cage motor), is about 35 or 30-horse as it comes up to speed. It starts, maybe, as a 10-horse motor with 15-horse torque. That torque and the pull on the belt increase steadily until it gets around to two-thirds or three-fourths speed. Now, some drives protect themselves by slipping during starting; some drives do not; but they all get a load that is severely more than the rated load of the motor. If you take some stuff that someone has worked up in the laboratory, and decide that it is good to put on a 10-horse motor, and put it on a motor that starts up with 35horse, its life is shortened considerably. Some men come back, in the discussion of this, and say that is only for a moment; it is 10-horse most of the time. But the tension has to be heavy enough all the time, during the heavy time and the light time, so that it will not slip too much. That belt has to be strained up to carry the 35.

IDLER CAPABLE OF HIGH OVERLOADS

This belt, when you load it, or the long center drive, for that matter, stretches and passes some slack around here (indicating), and when you load it up it begins to slip. But the idler always can cut out part of that. It is the very fact that an idler will carry, under rigid slip conditions, great overloads that makes it of great advantage in certain applications. It has the disadvantage that it will kill a belt, and unless we test the load we shall not catch the reason. And then we may not catch it if the overload is infrequent.

Now, I have said a good deal about troubles and limitations, as I said I was going to when I started. What is the best field for the idler? Where does it stand out best and give most satisfaction? As I think of it, properly designed, with very flexible belting of adequate size for the load that you are going to ask it to carry, with a large roller, so as not to have too many peaks, with room enough in here (indicating), it is excellent for fairly steady loads.

Some of you surely were in the army. You remember tossing men in a blanket? If you run this idler with a heavy load, and then go back to a moderate load, the idler will hop. If another heavy load comes when it is up in the air, it is not giving its tension. So the idler is best for fairly steady loads. When fitted with a dash pot to prevent jumping, it is fairly good for fluctuating loads.

CHAIN DRIVE ADVANTAGES

When we come to consider the chain drive, its principal recommendation in cotton mills is the fact that it does not slip at all. There is absolutely no slip. Where machines are driven individually this means a definite increase in output. In the case of group-driven machines, much of the slip is likely to be in the vertical machine belt where chain is hardly applicable because of long centers.

Silent chain also has the advantage of making possible very narrow drives; it will go in places where nothing else will go. The additional width required by the enclosure largely offsets this advantage in many cases, however, in drives of moderate capacity.

The next advantage of chain, I would say, is that it can be practically enclosed. You do not have to get at it often, so you can run it under conditions where no other drive will do at all. You can run it in places where no leather or rubber belt would stand up a week. I know a place where it has run where the surroundings are at 175°. One lubricant was used there that froze solid when the mill was shut down, but there are lubricants available that will stand those temperatures and not freeze solid. They still stay thick, but they do not get solid.

Then where we have dirt, where we have to shovel it out if you want to get in there, or where you have grease that would make the operation of any type of belt impossible, flying grease, or boiling-water drip, or slippery dust, like that from soapstone or cotton seed, you can use the chain drive. Those materials do not bother the enclosed chain, of course, at all.

I understand that the chain has been used pretty extensively through this section for some years. Its limitations, then, are probably familiar to all of you, so I shall just mention them.

There is increase in noise, in vibration and in power loss as a chain grows older.

Chain requires a higher type of maintenance help than some other types of drives. It also requires very accurate alignment. It requires more judgment and watchfulness on the part of the maintenance force. What I mean is that it is not as easy, when the mill is shut down, (Continued on Page 23)

Equipment Depreciation To Be Based On Replacement

EPRECIATION on second-hand knitting equipment acquired at abnormally low price shall be based on a "fair replacement value, new, of such assets," the new cost ruling approved by Gen. Hugh S. Johnson

Approval has also been given to the rule that normal capacity will be stated as 75 per cent of the maximum capacity. A schedule of depreciation rates is specified in the principles of cost, which is presumably given the force

The approval of a definition of costs and principles of methods of their determination given in Washington Friday establish for a trial period of 90 days a method of enforcing some of the measures for price stabilization which the hosiery industry has been searching for. The general definition of costs, as approved by General Johnson, is as follows:

"The cost of any article of merchandise, as the term is applied to the hosiery industry, is the sum of all the material and labor which can be allocated to the specific article, plus a proper share of all other costs of doing business, including expenses incurred by agents or factors in excess of commissions received by them and excepting only such items of expense as may be specifically ex-

SELLING PRICE DEFINED

"All of which are to be determined in accordance with such rules and regulations as may be established from time to time by the code authority and approved by the administrator. The selling price, which must not be less than the cost as herein defined, shall be the net price after all discounts and allowances have been deducted

"Manufacturing-overhead expense shall include all expenditures for labor, service and supplies that are necessary in connection with the operation and maintenance of the mill," the new ruling states, "but which are not directly applied to or do not physically become a part of the product. It also includes taxes, insurance and depreciation on all fixed assets that are used and are necessary to the manufacture of hosiery.

"The amount of the manufacturing-overhead expense to be included in the cost of each individual product shall

be obtained by the application of predetermined rates. "The normal capacity of a mill is controlled by the knitting equipment available or 'in place,' and the type of construction of the hosiery knit. It is therefore necessary, first, to consider knitting capacity in terms of productive time and then to estimate the quantity of production that can reasonably be expected in the productive time available.

DETERMINING NORMAL CAPACITY

"Overhead expense rates that will be used in the estimating of costs will be based on the normal capacity of the mill, which will be determined in the following man-

"(1) From the 52 80-hour weeks of the year, or other provision for the operation of productive machines as may be provided by amendment to the code, deduct legal holidays and the time allowed for taking inventory in order to determine the maximum possible time that the knitting department would be devoted to production, and express the result in terms of total productive hours.

"(2) Compute total maximum production that the knitting departments are capable of accomplishing in the total productive hours, and consider this the maximum

capacity of the mill.

"(3) Normal capacity will be stated as 75 per cent of maximum capacity. The deduction of 25 per cent is to provide for loss of time due to breakdowns, pattern changes, making samples, seasonable fluctuations and

"In any case, where a mill's total production has exceeded 75 per cent of the maximum capacity for the previous fiscal year, the actual percentage of maximum capacity so attained may be used in place of the 75 per cent otherwise specified."

CALCULATING DEPRECIATION

An important section of the ruling affects the method

of calculating depreciation.

"Accounting for depreciation shall begin immediately upon the completion of installation of fixed assets and be discontinued upon their abandonment or disposal or upon their complete depreciation, by use of the rates hereinafter specified on the straightline method.

"The basis for depreciation shall be original cost, including freight and installation, except that in the case of plant equipment recently acquired at an abnormally low price, the basis shall be the fair replacement value,

new, of such assets."

The schedule of depreciation rates sets forth:

Buildings-Concrete and steel, 21/2 per cent; brick, 2½ per cent; frame, 3 per cent; iron clad, 10 per cent.

Circular Knitting Machinery and Equipment-Seamless knitting machines used for making plain goods, including plain rib machines, 71/2 per cent; special attachments for style purposes, 33 1-3 per cent; all seamless split-foot knitting machines, 10 per cent; all seamless knitting machines used in making fancy hosiery of any

description, 10 per cent.

Full-fashioned Knitting Machinery and Equipment. Machines, 10 per cent; special attachments for style purposes, 33 1-3 per cent. Burson, Nelson and Lamb type, flat-bed automatic machines, 6 per cent; yarn making machinery and equipment, 3 1-3 per cent; steam plant equipment, 5 per cent; power plant equipment, 5 per cent; winding machinery and equipment, 5 per cent; seaming and looping machines, 10 per cent; singeing machines, 31/2 per cent; dyeing machinery and equipment, 10 per cent; boarding equipment, 10 per cent; furniture and fixtures, 10 per cent; automobiles and trucks, 25 per

Where machinery and equipment are not segregated, it will be possible to apply for a blanket rate of depreciation on the basis of 10 per cent for full-fashioned plants and

 $7\frac{1}{2}$ per cent on seamless plants.

An allowance for irregulars is covered in the cost principles. Provision is made for an allowance equal to the difference between the "realizable sales value of the irregulars and their manufacturing cost." This allowance is to be added to the manufacturing cost of the "first" to determine the total manufacturing cost of the firsts.

Ten items are specifically excluded from cost. These are the same items that were cited in instructions to mills in an effort to calculate costs in connection with the \$5.75 ruling on 42-gauge full-fashioned goods.

Opportunities For

Trained Men in the Textile Industry

(Continued from last week)

CHANGES BEING MADE IN SALES METHODS

This brief reference to style influence brings us naturally to that enormous field covered by Sections 5 and 6 of the flow-sheet in which some picture is given of the channels of distribution, the volume of sale and the number of people engaged in the marketing of textile products. Probably in no single branch of the textile industry have the changes taken place more rapidly than in this field of marketing during the past few years. Traditional methods of distribution are being appraised from a new viewpoint. At a dinner given in his honor, at the celebration of fifty years in his work, Dr. France, of the Philadelphia Textile School, stated that the problem of the successful mill today is to get art into productive limitations. "Any person," says Dr. France, "with originality can produce a pleasing design, but unless he or she is thoroughly conversant with all the limitations in commercial production from the purchase of a raw material through the various processes and the needs and demands of the market in which the goods are sold, that design is not likely to be an economical one for the manufacturer to produce."

Typical of the trends and of the problems involved in the analysis of the distribution of textile commodities, is the report on "The Merchandising of Cotton Textiles," published by the Graduate School of Business Administration of Harvard Univrsity, under the auspices of the Textile Foundation. To those mill men and school men especially intrested in reviewing these trends, this report is recommended. The statement of the problem is well

put in this paragraph from the introduction:

"The task of merchandising is to ascertain the characteristics of the merchandise for which there is a potentially profitable demand, to prepare instructions for the manufacturing plant in order that it may be able to produce goods for which a demand exists, to aid in developing plans for promoting the sales, and to supervise various routine operations in connection with these activities. Viewed differently, the essential task of merchandising is to determine what to make, how much, at what time, and at what price. The study of these problems of merchandising in the cotton textile industry leads also into related questions of sale solicitation and general organization and opens up certain questions of major policy in the industry."

From the viewpoint of opportunities for trained men, this inquiring into merchandising methods indicates that the analytical approach to selling is being substituted for traditional methods in the same way as it is in manufacturing. The producer of "gray" goods is seeking to fix the responsibilities for quality and price through the control of outlets where the responsibility in the past has been divided. To quote the Harvard report further, "When the gray cloth is made in one mill, bought by a converter and finished on his account by a job finisher, the responsibility for the quality of the final product is divided. This situation gives the opportunity for competitors, under the stress of buyers' efforts to secure lower and even lower prices, to gain temporary advantages by scrimping the cloth construction, or the finish, or both.

The effect on the industry is demoralizing and consumers are misled frequently into the purchase of cotton goods of a poorer quality than they really require. The industry is not organized to deal constructively and effectively with this situation.

"Modern business calls for close co-ordination of production, marketing and financial activities. This co-ordination cannot be obtained when one of these basic activities is entrusted to an outside party. In many instances this situation in effect is equivalent to that of a company which has a production manager and a sales manager with one or the other handling financial matters, but without a chief executive co-ordinating and controll-

ing the plants for the whole enterprise."

The report then points out that there is a trend toward forming fully integrated companies, each large enough to obtain the economies of large-scale production, and yet small enough to permit effective specialization and merchandising. "The problems of setting up such enterprises will call for careful study and planning. Production, merchandising and selling units," the report states, "must be selected for merging which will yield well-balanced enterprises. Competent executives must be obtained and well co-ordinated flexible organizations developed. All the competent merchandising and selling executives and staffs now active in the industry, as well as the mill men, will be required for manning these organizations."

SPECIFIC OPPORTUNITIES FOR TRAINED MEN

Some idea of the trends in the industry, which, in the future, will call for specialized man power, are contained in the closing sentence of the author's report: "If we expressed in one sentence the most important conclusions of this report, we should lay emphasis on three factors, which are essential in the long run to success: first, the necessity of creating products for which there is a profitable demand; second, provision for specialization within organizations to permit adequate attention to merchandising; third, a unity of control over the marketing, production, and financial functions of each business enterprise."

In the detailed report, many specific opportunities for trained men are represented under such position names as merchandise manager, product planning, loom lay-out clerk, stylist consultant, retail promotion (a position in the manufacteurer's marketing organization), manager of style bureau, sales statistician, and manager inventory control and mill schedules.

Trends in distribution as indicated in the report, also emphasize that all these specialized jobs are related in more closely knit sales organizations. Systematic and unified sales management is taking the place of the more loosely organized selling organizations of the past.

The report emphasizes that there is no mechanistic solution that would solve the distribution problem for the whole trend towards specialization is to relate the producing company more closely to the ultimate user of its product

These trends in the industry which indicate the reappraisal of the present methods of distribution which are projected in the report just quoted on the cotton industry, are equally evident in other branches of the textile trades. They indicate broadlay that the industry will call for men with knowledge of statistical methods, of cost analysis, of accounting and management practice, which is at present to be found more in graduates of business schools than in the graduates of textile engineering institutions. Trained men for the textile industry may be drawn in increasing numbers with this background of training.

There remains one further field for trained men, namely, that of retail distribution of textiles shown in Section 6 of the flow-sheet. During the past several years there has been a tendency among the larger retail establishments to buy all sorts of commodities on a basis of specification and test, with a result that textile specialists have been sought by these establishments, who have more fundamental knowledge of the production of the various materials and fabrics than is found in the ordinary retail employee. In a way this is a trend toward providing the sales force of the retail store with the kind of knowledge of fabrics and of cloth construction which obtained in the earlier days when most of our style goods were distributed by men or women who had an intimate knowledge of what they were selling. This trend toward the organization of knowledge so that the clerk in a store may transmit to the customer of machine made goods information on fibers, cloth construction, quality, utility and so on, that is assumed in the old-time purchase of hand-made goods, all calls for a degree of organization of trained minds, which opens up further opportunities for men and women with a general textile education. The extent to which college-trained men and women have been employed in certain merchandising establishments in this country is remarkable. In many instances these trends to establish specifications by the store buyer have resulted in changes in methods and in process which might have come from the manufacturers' end of the distribution chain rather than from the buyers.

This trend in scientific purchasing, both in the field of retail outlets and in the semi-manufacturing outlets, such as laundries, dyeing and cleaning establishments, and the like, has resulted in the need for trained men, and has had particular applications in education because of the growing importance of applied physics and applied chemistry in the study of wearing qualities of fibers, the "fastness" of dyestuffs, and so on.

So far, in this analysis of new opportunities for trained men and women in the industry, our discussion has concerned itself with individual manufacturing, wholesaling and retailing establishments. There is one final consideration which will have a very great influence in the future opportunities for trained personnel, and that is the co-operative movements for organized attack on the industry problems which are seen in the setting up of technical and trade associations. Thus, we see the textile industry through trade organizations codifying many practices under government auspices, all of which will have a profound influence in the industry of the future. Not only are the great textile manufacturing groups in

manufacturing enterprises are similarly organized. The key to this approach to the solution of the collective problems of the industry is found in the word "research." If there is one word which may be said to coordinate all trends, this word may be accepted as the base. Indeed, fact-finding, the analytical approach to the study of industry and trade problems, the spirit of research, may be said to be the bridge between specialized industrial education and the future of a great industry. As a basic educational conception, it may be taken as the keynote for all that follows in this report.

the cotton, silk and wool branches highly organized for co-operative work, but practically all the trades and semi-

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PERSONAL NEWS

and the state of t

W. R. Tattersall has resigned as general superintendent of the Eagle and Phenix Mills, Columbus, Ga.

J. L. Brannon has ben promoted from assistant superintendent to general superintendent of the Eagle and Phenix Mills, Columbus, Ga.

John L. Bobo, overseer of weaving at Easley Cotton Mills No. 3, Liberty, S. C., and Mrs. Bobo, are receiving congratulations upon the arrival of a son, J. L. Bobo, Jr.

Cecil V. Thomas, formerly night overseer of weaving at the Victor Mills, Greer, S. C., has become overseer weaving at the Santee Mills, Bamberg, S. C.

Fred L. Hunt, formerly with Echta Mills, Calhoun, Ga., has been promoted from section hand in spinning to second hand in twisting at the Anchor Duck Mills, Rome, Ga.

F. W. Warrington, field manager for WAK, Inc., and W. A. Kennedy Company, has been ill at his home in Charlotte for the past several weeks. He is improving steadily and hopes to be back at work within a short time.

J. Ed. Millis, secretary and treasurer of Adams-Millis Corporation, High Point, N. C., has purchased the estate of the late Frank B. Hower, reputed one of the finest hunting preserves and estate in North Carolina. It contains more than 1,800 acres. There is a lodge and kannels.

Forty thousand dollars is reported to have been paid by Mr. Millis.

Cotton Textile Code Authority Officially Named

The National Recovery Administration made known its recognition of the Cotton Textile Industry Committee as the Code Authority for the cotton-textile industry. This committee was designated by the Cotton-Textile Institute, acting in conjunction with the National Association of Cotton Manufacturers and the American Cotton Manufacturers' Association. Subsequently representatives of the committee were appointed by the National Rayon Weavers' Association, the National Association of Finishers of Textile Fabrics, the Thread Institute and the Mercerizers' Association of America.

Following are the members of the committee: George A. Sloan, Cotton-Textile Institute, Inc., New York; T. M. Marchant, American Cotton Manufacturers' Association, Greenville, S. C.; Ernest N. Hood, National Association of Cotton Manufacturers, Salem, Mass.; W. D. Anderson, Bibb Mfg. Co., Macon, Ga.; Robert Amory, Nashua Mfg. Co., Boston; Harry L. Bailey, Wellington, Sears Co., New York; Bertram H. Borden, American Printing Co., New York; G. Edward Buxton, B. B. & R. Knight Corp., New York; Cason J. Callaway, Callaway Mills, LaGrange, Ga.; Charles A. Cannon, Cannon Mills, Kannapolis, N. C.; John B. Clark, Clark Thread Co., New York.

A. E. Colby, Pacific Mills, Boston; Donald Comer, Avondale Mills, Birmingham; Stuart W. Cramer, Cramerton Mills, Cramerton, N. C.; F. C. Dumaine, Amoskeag Mfg. Co., Boston; B. B. Gossett, Chadwick-Hoskins Co., Charlotte, N. C.; R. E. Henry, Dunean Mills, Greenville,

S. C.; Percival H. Howe, Jr., Amoskeag Mfg. Co., New York; Henry G. F. Lauten, Prince Lauten Co., New York; Leonard S. Little, U. S. Finishing Co., Providence; J. Spencer Love, Burlington Mills, Burlington, N. C.; John W. Manley, Sayles Finishing Plants, New York.

G. H. Milliken, Deering, Milliken & Co., New York; Frank I. Neild Mfg. Corp., New Bedford; Charles Pinnell, Fred Butterfield Co., New York; Josef Pollack, Max Pollack & Co., New York; Albert L. Scott, National Association of Finishers of Textile Fabrics, New York; Seabury Stanton, Hathaway Mfg. Co., New Bedford, Mass.; H. R. Stephenson, Southern Bleachery, Inc., Taylors, S. C.; Robert T. Stevens, J. P. Stevens & Co., New York; J. S. Verlenden, Standard-Coosa-Thatcher Co., Philadelphia; W. J. Vereen, Moultrie Cotton Mills, Moultrie, Ga.; Charles Walcott, New Market Mfg. Co., Boston; and Robert R. West, Diverside & Dan River Cotton Mills, Danville, Va.

Holland Elected Head of Cotton Store Group

Greenville, S. C.—Charles A. Holland of Spartan Mills, Spartanburg, was elected president of the Piedmont Textile Retail Stores Association at a permanent organization meeting here, which was attended by around 100 cotton mill store executives of the Carolinas and Georgia, and by a large number of mill executives.

J. J. Collins of Union-Buffalo Mills, Union, was elected vice-president, while B. W. Johnson of Arcadia Mills, Spartanburg, was named secretary-treasurer.

The executive committee will be composed of the following: For South Carolina, E. F. Gregory, chairman, Spartanburg; John W. Erwin, Spartanburg; J. C. Mundy, Greenville, and W. C. Parris, Gaffney. For North Carolina, L. A. Carswell, Lexington; R. S. Cates, Asheville; E. A. Neal, Marion; M. B. Leath, Rockingham. For Georgia, C. E. McMichael, Jackson; S. A. Ferrell, Atlanta; A. T. Butler, New Holland, and F. M. Arnold, Sargent.

The organization was formed under direction of William P. Jacobs, Clinton, S. C.; Hunter Marshall, Charlotte, N. C., and T. M. Forbes, Atlanta, Ga., a special committee appointed by the American Cotton Manufacturers' Association with Mr. Jacobs as chairman.

W. M. McLaurine of Charlotte, secretary of the American Association, and T. M. Marchant, former president of the group, attended the meeting, as did Hull Bronson, secretary of the National Industrial Stores Association of Washington.

Data was gathered, which the major committee will present to the special president's committee on mill stores. Mr. Jacobs will leave for New York Sunday, he said, to take up the matter of a conference in the near future with that group, of which Dr. Charles Fowler of City College of New York, is chairman.

The Piedmont group will meet again in Greenville within the next four or five weeks. The principal issue up for discussion was Section 4 of the General Retail Code, which prohibits the issuance of non-negotiable scrip and wage deductions, which the store officials claim is necessary for the well being of the workers.

Avondale Plans Inspection

Birmingham, Ala.—The Avondale Mills, operating a number of units by the Comer interests, will stage their annual inspection trip of the mills located in a number of Alabama towns on May 21st. A number of invited guests will accompany officials of the mills on the tour.

Carders' Meeting Saturday

The Carders' Division of the Southern Textile Association will meet at 10 a.m. Saturday, May 19th, at Greenville, S. C. The meeting will be held in the auditorium of the Parker District High School.

The discussion will include a number of subjets of particular interest to carders. J. O. Corn, chairman of the Division, will preside.

Guillet Host To Employees

A. M. Guillet, president of the Dixie Spindle & Flyer Co., Charlotte, entertained his employees last Friday at the regular annual dinner. About 25 members of the organization were present. Other special guests were Dr. A. M. Bland, former mayor of Charlotte, and John L. Davidson and Mr. Blair.

After the barbecue dinner, talks were made by Mr. Guillet and Dr. Bland, the latter speaking on "Loyalty."

Students Visit Mills

The seniors in the Clemson Textile Chemistry and Dyeing Department visited the Pacific Mills, Lyman, S. C., and the Southern Worsted Company at Greenville on Wednesday, May 2nd.

Wednesday, May 2nd.

At the Pacific Mills attention was centered on the study of hydrogen peroxide bleaching, printing, continuous vat dyeing, and calender finishing of cotton piece

The Southern Worsted Company furnished an example of the manufacture and processing of worsted piece goods. Interest at this plant was centered on the dyeing of slubbing in the form of tops by means of the Franklin Process Pressure Dyeing Machine, the mixing and blending by means of Gill Boxes, twisting by cap spinning, weaving on looms, and the washing and fulling process.

A Letter From An Old Friend

We received this week a letter from an old friend, Harry H. Boyd, formerly general superintendent of the Chadwick-Hoskins Mills.

Harry Boyd came from New England many years ago. He established himself as an active part of the textile industry of the South and served a term as president of Southern Textile Association.

He retired voluntarily and is now living with relatives at 719 Hicks St., Fall River, Mass.

Son of Mill Official Wins Broad Jump

During the recent track meet of North Carolina colleges the broad jump in the freshman division was won by P. H. Hanes, Jr., of Winston-Salem, N. C., with a jump of 23 feet 5½ inches.

Young Hanes, who is a freshman at Duke University, is the son of P. H. Hanes, president of the P. H. Hanes Knitting Company.

American Glanzstoff Now North American Rayon Corp.

The name of the American Glanzstoff Corporation, well known rayon producer, has been changed to the North American Rayon Corporation, it has been announced by S. R. Fuller, Jr., president. The company's plant is located at Elizabethton, Tenn., and the sales and executive offices are in New York.



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David Clark Speaks at Woodside-Easley Dinner

David Clark, editor of the Textile Bulletin, delivered the address at the annual dinner of the superintendents, overseers and second hands of the Woodside Cotton Mills and the Easley Cotton Mills.

The dinner was held at noon last Saturday at the Poinsett Hotel, Greenville, S. C., with W. M. Grier, welfare director, as toastmaster.

With few exceptions all of the superintendents, overseers and second hands of the Woodside Cotton Mills at Greenville, Fountain Inn and Simpsonville, and of the Easley Cotton Mills at Easley and Liberty were present.

A feature of the meeting was presenting to Vice-President E. F. Woodside with a handsome traveling bag as a token of the affection and esteem in which he is held.

Those present were amused for awhile by alleged readings from a mystic globe. The readings related to incidents connected with those present and were exceedingly

David Clark was introduced by Toastmaster W. M. Grier, and after reviewing history of the race, of which the mill operatives are composed, and the movement of the cotton textile industry from New England to the South, dealt at some length with present day problems.

Among those attending the dinner were: W. M. Grier, welfare director; E. F. Woodside, vice-president; John T. Woodside, B. P. Woodside, manager Easley Mill No. 1; J. L. Woodside, manager Simpsonville plant; M. O. Alexander, superintendent Woodside Mill; S. T. McKittrick, manager Plants Nos. 2 and 3, Liberty; J. S. King, superintendent Easley Cotton Mills; J. T. Bray, assistant superintendent Woodside Mill; A. F. Hedgpath, superintendent Mills Nos. 2 and 3, Liberty; P. W. Pollard, superintendent Simpsonville and Fountain Inn plants; W. C. Waldrop, overseer carding Mill No. 1, Easley; J. G. Noblett, overseer weaving Mill No. 4, Easley; H. O. Brandt, second hand in weaving Mill No. 1, Easley; J. F. Waldrop, assistant second hand in weaving mill, Mill No. E, Easley; H. B. Evett, assistant second hand in weaving, Mill No. 1, Easley.

J. B. Gaines, second hand in Mill No. 2, Liberty; W. E. Smith, overseer spinning, Easley Mill No. 2, Liberty; G. D. Smith, overseer cloth room, Easley Mill No. 2, Liberty; J. E. Kestler, master mechanic, Mills Nos. 2 and 3, Liberty; G. H. Pruitt, second hand in spinning, Woodside Mill; C. D. Whitener, second hand in spinning, Woodside Mill; H. W. Abbott, overseer of carding, Woodside plant; J. H. Sanders, second hand, Woodside Mill; W. B. Perry, second hand, Woodside Mill.

J. H. Paxton, overseer carding, Woodside Mill; D. M. Shelton, second hand, Woodside Mill; Jas. S. Graham, Baptist minister, Easley; A. H. Pollard, overseer cloth room, Woodside Mill; A. E. Smith, overseer spinning, Easley Mill; H. P. Thompson, second hand in slasher room, Woodside Mill; W. A. Landreth, second hand in weaving, Woodside Mill; J. P. Smith, overseer carding, Mill No. 1, Easley; F. A. Gossett, overseer spinning, Easley Mill No. 3; W. C. League, second hand in machine shop, Woodside Mill; R. A. Waldrop, second hand in machine shop, Woodside Mill; J. K. McLeod, second hand in weave room, Woodside Mill.

S. V. Mahaffey, cloth room, Easley Mill No. 3; J. G. Atkinson, cloth room, Easley Mill No. 3; B. A. Andrews, machine shops, Easley Mill No. 2, Liberty; Cleveland Sanders, weaving, Easley Mill No. 2, Liberty; J. R.

Ballew, second hand, Easley Mill No. 2; G. T. Owens, overseer cloth room, Easley Mill No. 1; C. C. Ray, second hand in machine shop, Easley Mill No. 2; G. C. Duckworth, assistant overseer cloth room, Easley Mill No. 2.

R. L. Christopher, overseer weaving, Woodside Mill; B. T. Mulligan, overseer carding, Easley Mill No. 2; H. H. Epting, master mechanic, Woodside Mill; E. S. McCall, second hand, Easley Mill No. 2; T. W. Garrett, master mechanic, Easley Mill No. 1; G. O. Simmons, night mechanic, Easley Mill No. 1; F. F. Williams, paymaster, Easley Mill No. 1; J. L. Bobo, overseer of weaving, Mill No. 3, Liberty; R. W. Bailes, minister, Liberty; P. A. Kay, overseer of weaving, Mill No. 2, Liberty; W. T. Williams, second hand in card room, Simpsonville; W. J. Porter, section man in spinning, Woodside Mill; J. F. Pruitt, night overseer of carding, Mill No. 2, Liberty; G. P. Garrett, cloth room overseer, Simpsonville; R. L. Harris, second hand in carding, Mill No. 2, Liberty; Geo. Rutledge, overseer of carding, Mill No. 3, Liberty; and Carl Godfrey, section man in spinning, Woodside Mill.

Ask Tax on Rayon Or Removal of Cotton Process Tax

Urging that unless the compensatory tax upon rayon and other synthetic fibers provided for under the Agricultural Adjustment Act is soon imposed, the processing tax be removed from cotton, the Southern Combed Yarn Spinners' Association, at a meeting held in Gastonia, N. C., May 11th, ordered a telegram to that effect sent Secretary of Agriculture Henry A. Wallace. The Spinners' Association, together with the Mercerizers' Association, has for many months been presenting figures showing the necessity of imposing such a tax.

The telegram sent Secretary Wallace is as follows:

"For months we have anticipated that a compensatory tax would be laid on rayon. We felt we were justified in expecting this by reason of accumulated statistics showing rayon to be highly competitive fiber to cotton. Cotton fabrics made from staple cottons and the growers of long staple cotton are especially affected, and we believe the very life of our industry is seriously threatened. Unless compensatory tax is laid soon we respectfully petition for removal of the cotton processing tax as being only effective relief from present almost intolerable conditions."

Fred L. Smyre of Gastonia was elected to the Planning Committee of the Southern Combed Yarn Spinners' Association to fill the vacancy caused by the resignation of R. Grady Rankin, who resigned to assume duties with the Duke Power Company, at a meeting of the Association held May 11th in Gastonia. The committee is now composed of A. K. Winget of Albemarle, chairman, Arthur M. Dixon, and Fred L. Smyre of Gastonia.

First Vice-President A. K. Winget was moved up to the presidency of the Association to succeed Mr. Rankin, and W. H. Suttenfield of Statesville, second vice-president, was made first vice-president. Mr. Suttenfield is also chairman of the executive committee of the Association, the other members being S. P. Stowe of Belmont and Kay Dixon of Gastonia.

The Association represents over 1,660,000 combed yarn spindles in the South.

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For Spinning and Twisting

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National Cotton Week

N ATIONAL COTTON WEEK, which has come to mark the opening of the retail cotton season, began this week with over 30,000 retail stores actively participating and with community celebrations scheduled in many cities throughout the country.

According to the Cotton-Textile Institute, department stores and specialty shops of many types—large and small—are ready with merchandise, promotional plans and displays that are expected to move \$160,000,000 worth of cotton merchandise through retail outlets this week. Store executives have been concentrating for many weeks on elaborate plans for store-wide cotton promotions. New York resident buying offices have been busy on rush orders for their clients for popular cotton fabrics, cotton ready-to-wear and home furnishings.

The week climaxes months of preparation on the part of cotton manufacturers and their distributors to assure balanced and adequate assortments of cotton merchandise for the event.

"We are pleased with the magnificent recognition that retailers have given to National Cotton Week this year," said George A. Sloan, president of the Cotton-Textile Institute, sponsor of the event. "The amount of interest, enthusiasm and skill put into preparations for this observance goes beyond all our expectations. Important as National Cotton Week is this year, it is only the beginning of a cotton season which promises to set new records for sales of various classes of cotton merchandise. Among other developments, the new finishes have been most effective in extending the use and popularity of cotton for apparel purposes particularly."

We are publishing elsewhere in this issue a list of mills, selling agents and others who voluntarily contributed to the funds used in advertising National Cotton Week. Since its inception four years ago, National Cotton Week is the first event that has led the mills to enter into the kind of co-operative advertising that the textile industry has so long needed.

Whether or not actual sales during the week come up to expectations or not, the fact remains that it does succeed in focusing attention on cotton goods for seven days each year. Aside from the actual business done, the idea back of National Cotton Week is sound and is bound to prove beneficial to every one connected with the industry.

A Place To Cut Operating Expenses

The best chance of saving money in the operation of the average mill is in the economies possible in preventing power losses and in saving fuel. In other words, if the master mechanics are provided with the proper equipment they can reduce operating costs more than can be done through any other department.

This was again emphasized at the meeting of the Master Mechanics' Division of the Southern Textile Association in Charlotte last week. The group has been undertaking a study of possible savings through the above named sources and have developed some very interesting facts in this respect.

The chief handicap suffered by the average master mechanic or mill engineer is the lack of proper testing instruments to check on power and fuel losses. Where regular and systematic tests are possible by use of adequate testing equipment, substantial savings are invariably returned to the mill.

The mechanics find it difficult, however, to induce their superiors to purchase the necessary testing instruments. At the same time, the records show that the instruments soon pay for themselves and then continue to save money year in and year out.

As one speaker at the meeting remarked, the money spent for testing instruments should be classified as part of the plant investment. It should not be regarded as expenditures for supplies or shop equipment.

Any mill interested in reducing its operating expense will find it profitable to learn just how much money can be saved by systematic testing done through its mechanical department.



Communism Must Be Kept Out Of Our Schools

This cartoon by Mr. Powers calls your attention to a real and growing menace to American institutions.

In our colleges and even in our public schools there is a steadily increasing movement to teach the doctrines of Karl Marx and Lenin instead of the doctrines of Washington, Jefferson and Lincoln.

The principles on which this country was founded and on which it has grown to greatness are being undermined by this insidious propaganda of communism and internationalism.

The "Red" attack on our schools and universities is reaching nation-wide proportions. And it is the more serious because the average person is not aware of it and because it is actually being furthered at the expense of American taxpayers.

This situation demands searching investigation, followed by drastic action.

The stamping out of these "enemies within our own household" should be the first business of the National Government of all patriotic citizens and PARENTS.

The above cartoon and editorial are reprinted from the New York Evening Journal and show that, while we have stood almost alone in our fight against the teaching of communism and socialism in our colleges, the press of the country is finally awakening to the menace.

In the same issue a well known writer, Jas. T. Williams, Jr., says:

Proof has been produced that the snakes of alien intrigue are nesting on the campuses of dozens of universities and colleges. These institutions are maintained by the State, or exempted by the State from taxation, solely upon the theory that their common purpose is to train loyal and intelligent leaders for the several States and for the great American family which is the nation.

Facts in plenty have been assembled which reveal that the snakes of alien intrigue are today rearing their ugly heads in the very cradle of American citizenship—the public schools which are supported by the State, and also in many non-public schools that are exempted from taxation by the State.

How much of this alien money is being expended to

pollute American education, poison the channels of public information, influence the action of public servants, shape the course of foreign policy, disrupt and weaken the common defense, and broadcast to other countries anti-American propaganda only Congress can ascertain.

The little editors who have sought to protect the small group of radical professors by abusing David Clark and falsely accusing him of attacking the institutions themselves will soon find themselves forced into the open because the press and the public of this country are finally being aroused to what has been going on in some of our colleges.

With 27,500,000 Acres

THE Journal of Comerce now estimates the acreage to be planted in cotton as 27,500,000. Allowing 2 per cent abandonment, against the usual 3 per cent, it will give slightly less than 27,000,000 acres to be harvested.

The following table of recent yields shows the amount that would be harvested from 27,000,-000 acres:

		Lb. Lint	Bales	Would produce
Year		Per Acre	Per Acre	this year
1926	yield	181.9	.381	10,287,000
1927	27	154.5	.323	8,721,000
1928	22	152.9	.320	8,540,000
1929	22	155.0	.324	8,748,000
1930	22	147.7	.309	8,243,000
1931	22	200.1	.419	11,313,000
1932	21	162.1	.339	9,153,000
1933	21	208.0	.435	11,743,000

Labor Law Violations

The report of Commissioner Smith of the Massachusetts Department of Labor and Industries for April states that out of 64 counts upon which violation of the labor laws was proved in this State during the month 38 related to employment of women and minors. We are accustomed to read of this sort of thing in connection with mills, in the South, but it appears from the commissioner's report that "there are others."—Fall River Herald.

A Fallacy

WE are in accord with the following statement statement of Alfred P. Sloan, Jr., president of the General Motors Corporation:

No greater fallacy exists today than the viewpoint held by so many that the number of man-hours of employment is definitely fixed and, assuming that the number of workers is known, the problem of unemployment is solved by dividing the amount of work by the number of workers. Around this thinking comes the agitation for the mandatory 30-hour week.

THE DAVID BROWN COMPANY

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MANUFACTURERS OF "HIGH GRADE"

BOBBINS, SPOOLS, ROLLS, CONES. **SKEWERS** AND SHUTTLES

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STANDARD PRODUCTS FOR TEXTILE MILLS Textile Offices: Philadelphia, Spartanburg, Atlanta, Nashville, Newark, N. J., Boston, Mass.

Warehouse connections at all offices carry stock for service to the Textile Trade.



NEWS

BURLINGTON, N. C.-May Hosiery Mills, Inc., has declared a dividend of \$1 on the cumulative preference stock, payable June 1st, to stock of record May 17th. Three months ago a similar payment was made.

LANGLEY, S. C.—The Aiken Mills, main plant of the Langley unit, are making a number of repairs, and have completed the installation of 75 new and up-to-date cards, replacing old ones. The changing over of the cards represented an expenditure of around \$30,000. A new dyeing division was installed in this unit. This addition, including the new machinery and installation of same, cost around \$20,000.

DURHAM, N. C .- Fire gutted a large storage warehouse of the Louise Knitting Mills at Ash and Carden streets Tuesday. The fire was under control after trucks had been at the scene for approximately five hours. Ed Stone, president of the company, estimated the damage at \$5,000. It was not covered by insurance. The building was of frame structure and contained old machinery, waste and lint.

Anderson, S. C.—George H. Bailes has purchased the Anderson Hosiery Mill building on Tower street from the Hutchinson Mill Products Company of Mount Holly, N. C. The hosiery mill has not operated for about two years, and the machinery has been moved out of the building. The building is equipped with all modern facilities, and would make an ideal location for a small manufacturing plant of some kind.

MERIDIAN, MISS.—For the purpose of training operatives to work in the Phillips-Jones Corporation, shirt manufacturing concern, and a neckwear factory, two vocational industrial training schools are to be established here. Twelve hundred operatives are to be trained in the two schools. The State vocational department is co-operating with the manufacturers to insure an adequate supply of skilled operatives. This is said to be an important factor in the movement of establishing new manufacturing units in this State.

GREENVILLE, S. C.—Ruling that the Isaqueena Mill plant and the common and preferred stock of the Courtenay Manufacturing Company should be sold by the receiver, J. W. Wallace, was handed down by Judge G. B. Greene of Anderson. The decision was in a case brought by secured creditors demanding sale of the plant to satisfy obligations.

The Isaqueena plant is located at Central and the Courtenay Manufacturing Company is at Newry. The money derived from the sales would, after expenses of the receivership are settled, be pro rated to the creditors.

The litigation began when the Courtenay concern and other firms brought action against the Isaqueena Mill to have a receiver appointed. The case in which Judge Greene ruled directly was in the form of a petition brought by Cannon Mills, Inc., of New York, outstanding creditors of the Isaqueena Mill, and others. Stockholders of Isaqueena opposed the move, and several hearings were

B. L. Leppard, attorney for unsecured creditors and some stockholders, said that an appeal to the Supreme Court would be taken.

MILL NEWS ITEMS

ROCKINGHAM, N. C.—The buying of several residences in the Midway Mill village by the Entwistle Manufacturing Company for \$10,000 was revealed this week when a deed was filed in the court house conveying title to two tracts of land, one 36.2 acres and the other of 15.10 acres.

Shelby, N. C.—Charles D. Thoms and Arthur M. Grimes have organized, in New York, Charles D. Thoms & Co., to act as selling agent for the Eton Mills, Shelby, and Charles Mill, Red Springs, N. C. These mills produce synthetic and silk novelties for the dress goods converting trade, as well as lining, drapery and brassiere cloths.

Charles D. Thoms, until recently treasurer of Wilson & Bradbury, Inc., is treasurer of both mills, and hereafter will also act as sales manager.

Arthur M. Grimes has has been in the New York market for the past ten years, the past three years with Wilson & Bradbury. He will direct the styling and selling of dress fabrics.

Equipment of these mills has been thoroughly modernized in the past few years, including the installation of wide supersilk box looms. The entire output of both mills will come from 600 looms.

Burlington, N. C.—An aggregate recovery of \$13,309 is allowed Flint Hosiery Mills, Inc., in its suit against Homeland Insurance Company and the Firemen's Fund Insurance Company by judgments signed in Federal Court by Judge Johnson J. Hayes.

The matter went to Judge Hayes as a proceeding in equity in which plaintiff sought to set aside an award made by E. H. Seldon, an appraiser, in the adjustment of a fire loss in plaintiff's plant at Burlington. Judge Hayes held that the award by the appraiser was inadequate.

Judgment for \$10,140, with interest thereon from August 9, 1932, was signed by Judge Hayes against the Firemen's Fund Insurance Company. Recovery of \$3,169, with interest thereon from August 9, 1932, was allowed in the judgment entered against Homeland Insurance Company.

Exceptions to the court's findings were allowed by Judge Hayes.

NRA Challenged By Mills

Atlanta, Ga.—Taking under advisement the petition of the Richmond Hosiery Mills seeking to enjoin District Attorney Lawrence Camp from presenting an indictment to the Federal grand jury for alleged violation of the NRA code of fair competition of the hosiery industry, Judge E. Marvin Underwood, in Federal Court of the North Georgia District, said he would order the grand jury meeting postponed.

Judge Underwood postponed the meeting of the grand jury in Gainesville so that he will have ample time to consider the petition. In court Thursday he was interested in determining whether or not it is a criminal act to violate a code of the NIRA.

Judge Underwood was trying to determine whether the NIRA is constitutional, and whether the government would be invading the property rights of the company in bringing the indictment.

Judge Underwood's decision in this case will affect all

Announcing A NEW DEAL for Brush Users

In keeping with its progressive policy of constant improvement, the Atlanta Brush Company announces a selling plan which will mean a "new deal" on brushes for textile mills and other users of industrial brushes.

In an endeavor to establish direct contact with our customers and in that way assure them of more personal attention and quick service, we are instituting a direct sales policy. Reduced costs on account of this new policy are passed on to the customer, which assures him

Lower Prices Higher Quality Better Service

With a reputation of nearly 30 years of quality brush manufacture and intimate knowledge of brush requirements in textile mills, PERKINS PRACTICAL BRUSHES are known throughout the Southern textile industry for their superior quality and long life. The great variety of various types of brushes gives the textile buyer a quality brush for any textile mill need.

Through direct contact, we will be in position to see that our customers receive *fresh*, *new* and *clean* brushes always, and that personal and careful attention is given every order, large or small.

Write us today for information on these better brushes and our new low prices.

ATLANTA BRUSH CO.

Manufacturers---Designers---Repairers

ATLANTA



GEORGIA

For every textile need, we make a suitable Brush alleged violations of the hosiery code, and will probably affect violations of all codes under the NRA.

Representing the government at the hearing with District Attorney Camp, Thursday, were Curley C. Hoffpauir, assistant counsellor of the National Recovery Administration, and Neil Andrews, assistant United States attorney.

The hosiery company is being represented by John Chambliss, of Sizer, Chambliss & Sizer, Chattanooga, Elbert P. Tuttle and Joseph Brennan, of Sutherland, Tuttle & Brennan, Atlanta, and J. Alton Hosch, of Gainesville.

Extreme importance is attached to this case by the government, as it is understood to be the first of a series of prosecutions of alleged violations of various kinds of NRA codes in this section.

In his answer to the Richmond Mills' petition, Mr. Camp claims that the mills cannot bring the petition against him in that it is the same as bringing it against the United States, which cannot be sued without its consent.

The hosiery concern is understood to be challenging the constitutionality of the National Recovery Act, but is not requesting Judge Underwood not to consider the constitutionality or unconstitutionality of the act, claiming that its case does not come under the act.

The government's answer to the petition states that Garnett Andrews, president of the Richmond Mills, participated in meetings of hosiery industry executives in New York in the formation of the code for the industry.

Greenville, S. C.—Dividends totalling \$210,000 are being paid out by two mills of greater Greenville.

Piedmont Manufacturing Company, headed by S. Marshall Beattie, is paying \$80,000, being the regular 4 per cent semi-annual dividend and a special dividend of 1

Judson Mills is paying nine quarterly payments on Class A preferred stock, bringing those payments up to date, and is also paying one quarterly amount on Class B preferred stock. The total amount disbursed by this mill will total \$130,000, mill officials stated.

Mills of the section have been rapidly catching up on payments on preferred stock, in arrears during the depression.

GASTONIA, N. C.—F. C. Todd, Inc., local dealer in textile machinery, is offering for sale the entire equipment of the Catawba Spinning Mill at Mount Holly, N. C., as well as the real estate formerly owned by that company. The machinery is offered in lots or as a whole, including

some 7,000 spinning and twisting spindles and other eqquipment.

April Consumption of Cotton Spurts

. Washington.—Counting round as half bales, except foreign, which is in 500-pound bales, 512,703 bales of cotton were consumed during April compared with 470,359 bales the same month last year, according to preliminary figures made public by the Bureau of Census, Department of Commerce.

Consumption for the nine-month period ended April 30th this year totalled 4,458,007 bales, compared with 4,218,932 bales in the same period last year. Cotton on hand April 30th in consuming establishments totalled 1,584,746 bales, compared with 1,371,218 on the same date last year, and in public storage and at compresses for the two periods there was a total of 7,101,941 bales and 8,151,913 bales, respectively.

Of total consumption during April, 406,678 bales were used in cotton-growing States, 90,937 in New England States, and 15,088 bales in all other States. Consumption during April also included 8,553 bales of Egyptian cotton, 3,958 bales of other foreign cotton and 1,086 bales of American-Egyptian. Linters consumed during April totalled 67,822 bales, compared with 60,031 bales for the same month last year.

Cotton Acreage of 27,500,000 Expected As Seeding Advances

Planting of cotton in the Southern States is rapidly moving forward toward completion on a total acreage which is unlikely to be in excess of 27,500,000 acres, according to the reports of the *Journal of Commerce* crop correspondents scattered through the belt. As of early May, sowing of the new crop was practically complete in the southern part of the belt, and advancing rapidly toward completion in the central part of Texas in the west and South Carolina in the east. Planting is beginning in the northern part of the belt, and undoubtedly has been greatly accelerated by recent warm temperatures and improved soil conditions.

The reports of correspondents indicate a smaller acreage than growers expected to put into cotton a month ago. Growers who signed voluntary acreage reduction agreements with the Government are keeping the acreage down to the amount specified, as was previously indicated. However, further reductions in the prospective area have come about as a result of the Bankhead Act to limit the amount of cotton that can be sold tax free next fall to 10,000,000 bales. A good many smaller growers who

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Tempered and Side Ground Card Clothing

TOPS RECLOTHED

LICKERINS REWOUND

COTTON MILL MACHINERY REPAIRED

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Graham and Palmer Sts., Charlotte, N. C.
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Textile Supply Co., Texas Representative, Dallas, Texas



signed the voluntary plan have cut acreage further to adjust production to their quotas. Growers who did not sign the voluntary plan are not increasing acreage. New land not put in cotton last year and which was plowed for cotton this year is being put into other crops. Where a month ago considerable new cotton land was expected, correspondents now say this will not eventuate. Contrary to some expectations, the Bankhead law seems to be engendering support, despite the fact that in such States as Oklahoma it is not popular.

Spartanburg Plants Reducing Schedules

Spartanburg, S. C.—Textile plants here are going on reduced schedules this week, it was learned. Plants operating five days a week will in some instances curtail operations to four days, while others will operate three weeks only out of each month.

It is learned from mill officials that orders during the past few weeks have been on a general decline and there is little disposition on the part of some of the operators to stock finished goods. This is particularly true of several mills finishing fancy goods and according to reports, this class is suffering to the greatest extent from the general slump in business.

Operators say they do not know how long the forced curtailment will continue.

Master Mechanics Meet in Charlotte (Continued from Page 10)

to tell by looking at a chain whether it is time to replace it or not. You can not, of course, tell anything about it by looking at it when running; you can by listening to it.

The most serious limitation is in speed. Silent chains can not be satisfactorily run at anything approaching the speeds at which belts can be operated. There is no limitation on small drives. As I think of it, chain and gear limitations are about the same, about 1200 to 1500 R.P.M., if you want long life. That is no disadvantage with a 1 H.P. motor, but you can not do it with a 40 H.P. motor.

You can not put on sprockets much smaller than standard motor pulleys and expect chain drive to stand up; that is what makes many a man absolutely prejudiced against chain.

BEST APPLICATIONS FOR CHAIN

What is the best application for chain? Where does it show its greatest superiority? One place is where you must have precise speed. In my own experience, the

place where that was beaten into me by trouble, beaten in and clinched, was in such applications as very long conveyor belts, which must be kept at high tension. It is something of a problem. It can be worked out fairly simply and economically, but you have to drive with chain. With these conveyors driven from more than one point, if there is any more slip on one belt than on another you build up trouble.

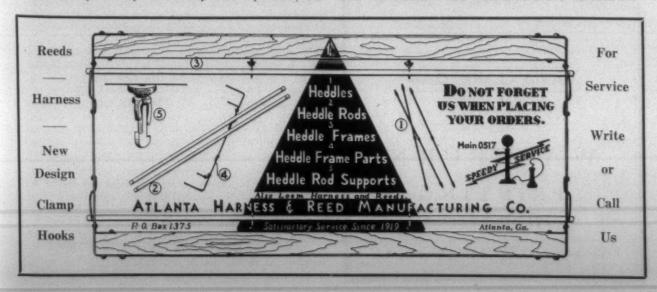
The best application, I think, is on small drives where the speed can naturally be low, well within the best chain speeds, where the pinion diameter is of no consequence, and where the need of precise speed warrants the higher first cost and higher maintenance cost that naturally goes with chain. Another application is where nothing else will do, where there is extreme heat, flying grease, boiling drip, excessive dust, etc.

V-BELT SHORT CENTER DRIVES

The next, I think, is the multiple V-belt drive. The V-belt was the first short center drive using belts which, under favorable circumstances, could be operated with the return strand fairly slack; and it immediately found a place in industry. Like all other new things, many installations were made outside its natural field.

The limitations as to speed are much less than for chain. Unless the sheaves are right down to the minimum size the manufacturer recommends for the belt, the V-belt can be run for long service up to 3500 feet. The manufacturers recommend them up to 4000. I have had some unfortunate experiences at 4000.

In cotton-mill applications, I would say the greatest disadvantage of the V-belt is its slip. When new, with plenty of belts, when a job is designed with an ample number of belts, its slip is generally just on the high side of 1%. But V-belt-drive slip increases; it becomes worse as the belt grows older. The belts take a different surface after they have run a year or less; they acquire a shiny surface. They can not come off, to call attention to this slip. Sometimes you put a counter on the job and find you are getting 10% slip; on high-speed drives 10% slip is not particularly uncommon after the belts have run for a year. Two or 3 or 4% is common enough on a V-belt drive that has been in service quite a while. In such a drive there is nothing to do but to increase the tension, pull the motor back, tighten it up. That pulls the slip down. I remember my first experience with that. went around after a few days and found this condition was there again. We had pulled the tension up just as high as we dared on the motor bearings. I thought that some mill mechanic had come around and loosened the



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bearings, and I accused them of it. They denied it. I tightened it up again, and in a week I found it had slacked. I still thought the mill mechanic had changed it, and that time I center punched the rolls; I thought those fellows were lying. I tightened it up again, and when I went back in a few days I found the fellows had not been lying. Long afterwards I found what was the trouble. That combination was impossible, because it would not give the speed ratio. As we pulled it up it was too much for the cords of the belt; we were pulling those cords too hard, and they just lengthened out.

Another limitation of V-belts is that you can not splice them. This is troublesome where there is a bearing on each side of the driven pulley, as considerable dismantling may be required. Belts last generally from one to three years. This is particularly troublesome in cases where an outboard bearing makes replacement a long job; there has to be a good deal of dismantling. If you are building your machinery with a knowledge of what you are going to put on it, you can arrange it so that there will have to be less dismantling. But with machinery already built you can not do that.

In a great many cases V-belts have been marketed too small; they are plenty large enough to carry the rated load of the drive, but not large enough to carry the starting load. Then the V-belts do not last so long.

What is the natural field of the V-belt? Where does it get a chance to show its points of superiority most? I would say in those applications where a gradual increase of slip with age is not a great inconvenience; particularly in small sizes, where the driving speed is not so different from the motor speed as to make a large difference in size between the two sheaves, where one sheave can be half as big as the other, or at least a third as large, without running the rope speed up above 3000 or at most 3500 feet. Under those conditions, with moderate horsepower, stopping at about 30, with average conditions, you get very good satisfaction from V-belts. They run at moderate tension and are good.

ROCKWOOD DRIVE

Let us now take up the Rockwood drive. That is newer and is not so well known in the textile field as the others I have mentioned. As to the principle of the drive, it is a flat belt drive, either a rubber or leather belt. The outstanding item in the performance of the Rockwood drive is low slip. A portion of the motor weight is used to maintain tension in the belt; it is simply a means of taking up slack.

The motor for the horizontal type of the drive is hinged in position, supported by the belt. You can get whatever tension you want by placing the motor in different positions. It is adjustable, easily adjustable, even while it is running. You can set it up and watch; if there is slipping starting, set it back. You can easily adjust it to give more belt tension, and it will hold this new tension without change.

Its most serious limitation in the first few years it was marketed (and there are a dozen or so of them in this section of the country that went in in 1928, or between 1928 and 1930) is that there was no tendency for the weight of the motor to keep the belt tight in vertical installations. There is now a newer type. Instead of using the weight of the motor, there is a long coil spring in here (drawing on blackboard) that is extended very little as it moves. That drive can be run with the belt down or the belt going up.

Once the adjustment is made to give the right tension in the belt, the movement of the motor with respect to the pivot, it should not be changed. Or you can move the pivot right back. That takes up the belt shift. After

a few years, if the motor begins to get out of line, you can move the whole pivot shaft back, or you can move the whole line shaft until it is centered on the pivot.

The Rockwood drive has 1/3 of 1% slip to .75% slip. It is not really slip; it is creep. Creep and slip show up the same on the pick counter, but the cause of creep is quite different. If you make two marks an inch apart on the tight side, when the belt gets on the slack side those marks will not be an inch apart. In other words, the belt is elastic, and it stretches somewhat. A rubber belt gives less than any other, because it has less elasticity.

If the designer is wrong, if when he figured your drive and sent it out he told you to put the motor so-and-so, and maybe he is wrong and has made a mistake, or maybe you gave him the date wrong on the heaviest load you have to take care of, it is just a matter of moving the motor back.

These drives operate better on comparatively short centers, never 10 or 15-foot centers.

There is not enough stretch in the life of the belt to require it to be shortened. Ordinarily they run well with an endless rubber or leather belt. There is enough takeup in the automatic to go for a year or two, and enough take-up in the base to last the life of the belt.

There is an effect here which perhaps I shall not be able to describe in detail enough to make it plain. There is a small leverage on the tight side, and a large leverage on the slack side. When the load becomes light on this drive, the tension in the strands of the belt becomes less. It would be a long story to go into that; the result, however, is that the belt is not under as heavy tension under ordinary average running loads as it is under starting loads; the tension is automatically reduced. It is under very much less tension when standing idle, the tension being automatically reduced still further. That tends to increase the life of the belt, and also tends to increase bearing life.

LIMITATIONS OF ROCKWOOD DRIVE

What are the limitations of the Rockwood drive? Like every other, it has them.

First, they do not work well on long centers. If you put the Rockwood up on 10 or 15-foot centers, you have elasticity along that belt, and it sometimes gets to going the way the weight would on a spring if you gave it a little push. There is more elasticity in a belt, often, than we realize, and you may get a swing. The cure for that, in most cases, is to shorten the centers.

The Rockwood drive requires careful belt work. A thick, bulky, carelessly made splices will sometimes make the motor bob. It is not much of a bob; it will carry the load; but it looks bad, and most people do not like it.

The other limitation is this. I spoke a while ago about leverages as if this (indicating on drawing) were always the tight side with Rockwood. It ought always to be, if possible. The rule is that the tight side of the belt ought to be on the side of the pulley. That will give longer belt life and longer bearing life. It drives all right if the tight side is on what I call the wrong side, unless there are big fluctuations. If they have to be operated to take care of 100% or 200% overload, then there is trouble. I would say that is the most severe limitation—severe fluctuating loads with bit overloads. You have to find a place to locate the motor that will put the tight side on the side where the hinge pin is. Almost always you can. It is generally possible to find a way to use the most advantageous mounting. Another way out of that that has been used in several cases is to increase the center distance a little and cross the belt.

The remainder of the report of the meeting will be published next week.

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Cotton To Be Normally Fertilized

The cotton crop will probably receive about the normal amount of fertilization this year as compared with subnormal fertilization during the past few years, according to the New York Cotton Exchange Service.

On the basis of fertilizer tag sales and other data, the Service estimates

that 33.0 to 38.0 per cent of the total cotton acreage in the South will receive fertilization this year as compared with 25.0 per cent last year, 23.1 per cent two years ago, and an average of 36.2 per cent in the five years just prior to the depression, 1925 through 1929. It also estimates that 250 to 270 pounds of fertilizer will be applied to the acre, on an average, where fertilizer is used, as against 239 pounds last year, 205

pounds two years ago, and an average of 268 pounds from 1925 through 1929.

Canada Plans to Boycott Japanese Textile Goods

Toronto, Ont.—In common with the action taken by Great Britain, Canada will reduce imports from and possibly boycott entirely textile goods and manufactures from Japan, especially in the silk lines, it was intimated in authoritative circles here.

New anti-dumping laws, it was stated, will be formulated on a basis comparative to those under way in Great Britain at the present time, which resulted in Great Britain declaring open rade war against Japan. The fact that Canada is an Empire country has been responsible for a similar action here, especially with regard to textile products.

Harriman Mills Reply To Johnson

Knoxville, Tenn. — The Harriman Hosiery Mills Friday sent a letter to NRA Administrator Johnson in answer to one they received from him.

"Any publicity must come from the NRA," said T. Asbury Wright, of Knoxville, attorney for the mill. He would not say whether or not any mill officials will go to Washington this week to confer with General Johnson on a proposed restoration of the Blue Eagle, as the NRA chief has invited them to do.

S. K. Johnson, of Harriman, said that 69 business men who signed to remove their Blue Eagles as a protest against the mills losing one "still have them down." He added: "In fact, we have had one or two more sign up." Mayor J. G. D'Armond, of Harriman, disagreed, declaring that "there might be 25 merchants who still have their Eagles down, but I doubt it." The 72-year-old Harriman mayor said that some who signed the petition "thought they were asking the NRA to restore the emblem to the mills and didn't know they were signing to take theirs down."

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The Institute's promotional program covering the remainder of 1934 has several new features that have been added as a result of the increased funds that have been set aside for this work. The program is already laid out and will be announced from time to time during the sum-

mer and fall.

Week Shutdown of All Silk Mills

The Silk Code Authority, upon the demand of a majority of the members of all the divisions of the silk textile industry, this week ordered a complete shut-down of all production for the week of May14th to 21st.

The curtailed order states that "each and every machine operating under the Silk Textile Code for the employers' own account or on commission, on or in connection with broad fabrics, dress fabrics, underwear fabrics, special fabrics and tie fabrics, to cease all operations during the week of May 14th to 21st."

Mooresville Co. Protests Tax Collection Methods

Members of Congress from North Carolina and other States of the cotton belt have been showered with copies of a resolution passed by the board of directors of the Mooresville, N. C., mills protesting against the method by which the cotton processing tax is collected. The protest is not against the tariff itself. Z. V. Turlington, head of the Mooresville Mills, is a former member of the North Carolina Legislature. He states that the resolution expressed the attitude of the majority of the textile industry, many mills of which, his own included, he said, take orders for goods to be delivered from six to eight months in the future. The hardships and the tax collection method, he pointed out, come from the fact that the tax becomes due sixty days after the end of the month in which the cotton was opened.

This makes carrying charges too heavy and places upon the industry a burden that it cannot afford to carry at this time, the resolution says.

The petition asks that Congress amend the processing tax law so that the manufacturer may pay in the same manner as the income tax is now paid; that is, that taxes due and payable for the fiscal year in which the tax incurred be paid either in full or in four equal quarterly payments during the following year, free of interest.

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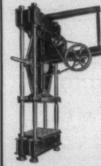


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COTTON GOODS

New York.—Gradually improving conditions were noted in the cotton goods markets last week. Sales were in excess of production for the first time in a number of weeks. The best business done was in print cloths and broadcloths, which sold well for spot and contract shipment. Prices on these goods were an eighth cent up. While many mills are running out of orders, more business is coming in and in general the situation is showing improvement. Some announcement relative to curtailment is expected from the Code Authority within a few days.

Sheetings were generally quiet. Some styles had shown improvement during the week, while others were lower. The lightweight numbers were noticeably stronger, but some of the heavier 40-inch goods had moved into new low ground.

Stocks have been accumulating in print cloths, narrow sheetings, broadcloths, and some of the convertibles, and some of the bleached and colored domestics. They have not been accumulating in heavy cloths such as tire fabrics, very wide heavy cloths for mechanical and industrial purposes, and in cotton duck. Specifications on contracts for the latter have been coming along well and stocks are substantially lower than at the beginning of the year.

In fine goods markets trading was restricted. There were occasional instances where buyers attempted to cut under last selling prices on some of the combed lawn styles, but these were unsuccessful. Some business had been done in all-cotton fancies, at prices reflecting a fairly strong position on the part of mills, but in quantities that did not run into any great yardage. There was little doubt but that a number of converters were planning to get started on their fall fancy goods lines a month or two ahead of the usual time, but the effect of this was to drag operations over a longer period with the consequences that the market did not seem active.

D: 4 1 41 201 44 40	
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Print cloths, 27-in., 64x60s	45/8
Gray goods, 38½-in., 64x60s	63/8
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Staple ginghams	91/4
Standard prints	_ 73/4

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DIEDERMANICAL CALLANTE PROPERTY OF THE PROPERT

Philadelphia, Pa.—The general tone of the yarn market was better last week. Sales were slightly larger, but were spotty and covered a limited range of yarns. Demand for the better grades of knitting yarns was somewhat more active.

Since a week ago prices have remained practically unaltered. The most important change since then has been the withdrawal among sellers of a number of spinners whose price ideas have undergone fractional betterment. However, enough remained eager to close contracts with buyers to maintain the status quo on quotations of carded and combed numbers. The situation has been improved to the extent that buyers found fewer sources of supply at the easier trading levels which had marked operations while cotton seemed headed downward more than materialized.

During the last week sales have been for small lots, running from case lots up to 10,000 pounds each; manufacturers are not speculating by covering ahead of goods orders in most instances, although some knitting contracts have been recorded where underwear mills have bought for July-September requirements.

With yarn merchants unable under code regulations to add to stocks here unless through consignments, local supplies in merchants' hands are diminishing and are "small," according to several dealers, who add that replenishment under code provisions is not feasible in many instances, because quite a few spinners refuse to ship yarns here on consignment for dealers 'stocks. Several sellers say no large amount of spot yarn could be bought if manufacturers suddenly felt such purchases were necessary.

Combed yarn prices on identical qualities varied several cents a pound to over 5c. The meeting in the South on Friday among spinners is looked forward to as indicating the will of this market to adopt the code of the carded division. The attitude of individualism has given way to a desire for control and protection against various subversive practices which hace come up under severe

con	npetition.		
	Southern Single Warps	30s	35
108	27	408	4216
128	271/4	40s ex	45
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268	3214	108	
30a	341/4	128	
8	outhern Two-Ply Chain Warps	16s	
88	2614-	Carpet Yar	ns
108	27	Tinged carpet, 8s,	9
128		and 4-ply	
168		Colored stripes, 8s,	
208	281/4	and 4-ply	951/
248	2917	White compete Co	
268	81%	White carpets, 8s,	901/
	32 1/4	and 4-ply	
308		Part Waste Insulat	
30s	ex36 -361/2	8s, 1-ply	22
	Southern Single Skeins	8s, 2, 3 and 4-ply	22
88	2614	10s, 2, 3 and 4-ply	221/4-
108	27	12s, 2-ply	231/4
128		16s, 2-ply	2534
148	271/4	20s, 2-ply 1/4	
168		30s, 2-ply	
208		36s, 2-ply	3716-
268	2916	Southern Frame	
30s	321/4		
	39 %	88	
368	39 1/4	108	261/4
40s		128	27
	Southern Two-Ply Skeins	148	
88	2614	168	28
108	27	188	281/4
128	2714	208	
148	28	228	
168	281/4	248	31
20a	29 %	26s	82
246	2912	28s	83

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Quotations By A. M. Law & Co., Inc.

Spartanburg, S. C. April 14, 1934.

\$ Per Share Eld Asked

Abbeville Cotton Mills	-	A CONTRACTOR	8
Anderson Cotton Mills	-	35	
Arcade Cotton Mills	-	7	13
Arcadia Mills	-	64.4	10 20
Arcadia Mills, pfd		-	
Arkwright Mills	-	-	35
Avondale Mills, Ala.			
(Par. \$5)	1	27	31
Beaumont Mfg. Co	-		120
Beaumont Mfg. Co. 7%			
3.d	79	80	-
Belton Mills (Par, \$25)	-	8	11

Belton Mills, pfd Bibb Mfg. Co.	314	49 80	85
Brandon Corp., A		37	41
Belton Mills, pfd	71	90	95 50
Chadwick-Hos Co. (Par,			
\$25) Chiquola Mfg. Co. Chiquola Mfg. Co., pfd.		105	120
Clifton Mig. Co.	8	74	78 85
Columbus Mfg. Co	6	65	75 25
D. E. Converse Co. Dallas Mfg. Co. Darlington Mfg. Co.	5	60	23
Drayton Mills		10	7
Dunean Mills Dunean Mills, pfd. Eagle & Phenix Mills Easley Cotton Mills, pfd.	8	125	135
Eagle & Phenix Mills Easley Cotton Mills, pfd.	_	45 45	55 55
Enterprise Mfg. Co. Fairforest Finishing Co.,		40	50
Serial Notes	61/2	90	100
Florence Mills, pfd.	7	40 85	50 95
Gaffney Mfg. Co. (Par. \$50)		20	23
Gainesville Cotton Mills_Glenwood Mills	6	40 70	45 80
Gossett Mills Graniteville Mfg. Co	5	47 50	65
Grendel Mills, pfd. (Par. \$20)		13	15
Hamrick Mills Hartsville Cotton Mills	-ē•	40 70	50
Industrial Cotton Mills Co., pfd.	7	63	68
Inman Mills	6 7	60	
Inman Mills, pfd. Judson Mills, A pfd. Judson Mills, B pfd.	71	70	
King, John P., Mfg. Co.		58	60
Laurens Cotton Mills Limestone Cotton Mills	4	55 40	65 50
Lydia Cotton Mills, Se- rial Notes	.7	85	90
Marlon Mfg. Co.	6	70	80
\$20) Mills Mill, pfd. Mollohon Mfg. Co., pfd. Monarch Mills Musgrave Cotton Mills		12 66	14 75
Mollohon Mfg. Co., pfd Monarch Mills	7 6	86 64	71
Musgrove Cotton Mills Newberry Cotton Mills Norris Cotton Mills	-6	12	16 75
Norris Cotton Mills	4	25 37	
Orr Cotton Mills Orr Cotton Mills, pfd.	7	80	85 38
Pacolet Mfg. Co., pfd.	8	65	70
Piedmont Mfg. Co.	8	80 105	90 115
Pickens Cotton Mills Piedmont Mfg. Co. Poe. F. W. Mfg. Co. Riverside & Dan River		20	23
Riverside & Dan River		6	9
Saxon Mills		65	70 22
Mills (Par, \$25) Riverside & Dan River Mills, 6% pfd. Saxon Mills Sibley Mfg. Co. Southern Bleachery &		20	30
Print Works Southern Bleachery & Print Works, pfd.		18	21
Southern Bleachery, Se-	7	84	88
rial Natas	7	99	101
Southern Franklin Proc- ess (No Par) Southern Franklin Proc-	-	3	7
ess, pfd. Southern Worsted Corp., pfd.	7	95	100
pfd. Spartan Mills		40 95	50
Spencer Corp., Serial	0	20	60
Union-Buffalo Milla			
(Par. \$10) Union-Buffalo Mills, 1st		8	10
union-Buffalo Mills, 2nd	1%	73	80
2nd pfd. Victor-Monaghan Co.	-	23	26
(Ex. Div.) Victor-Monaghan Co.	6	66	68 64
Victor-Monaghan Co.	7	105	
Wallace Mfg. Co. Ware Shoals Mfg. Co.		55 55	60 65
ware shoals Mrg. Co.		75	80
pfd. Wellington Mills (No Par)		8	
Wellington Mills, pfd. Woodside Cotton Mills	6	67	
Co., pfd.		10	13
Miscellaneous Stocks and Bonds			
Clinchfield Coal Corp.		-0.00	
pfd. Piedmont & Northern	3	28	35 43
Southeastern Express	5	65	75
Taylor-Colquitt Co. (No	1	19	21
Taylor-Colquitt Co., pfd.	7	96	-
OPINE awter			

*Plus extra. †Plus back dividends.





VISITING THE MILLS

Edited by Mrs. Ethel Thomas Dabbs

ROANOKE RAPIDS, N. C.

THE ROANOKE MILLS COMPANY, PATTERSON AND ROSE-MARY MILLS—ALL BELONG TO THE SIMMONS MATTRESS CO.

There are six large mills in the group—No. 1, and No. 2, Roanoke Mills Co., No. 1, No. 2 and No. 3, Rosemary Mfg. Co., and the Patterson Mill. But the Messrs. Simmons did not tear up the organization at these mills. They did not gobble up the big offices; S. T. Peace is president, treasurer and manager of the Roanoke Mills Co., and of the Patterson Mill, and is vice-president and treasurer of the Rosemary Mfg. Co., where W. L. Manning is president and general manager.

Z. G. Simmons, Jr., is vice-president, and C. G. Simmons is assistant treasurer at Roanoke Mills—the only offices held by the owners—something very unusual and much to their credit; most mill owners are not so unselfish.

ROANOKE MILLS Co.

J. M. Jackson is secretary; R. L. Towe, assistant secretary; F. C. Williams, assistant manager; H. D. Camp, general superintendent, assisted by A. O. Pendleton at No. 1 and —, —, Cassidy, at No. 2. Overseers same as last year.

Both these mills have been recently painted inside—white, with pipes red, green and gray, showing which are water, steam and electric carriers. The grounds about both mills are very pretty with flowers, shrubbery and smooth lawns.

A. O. Pendleton, assistant superintendent, and "Miss Sallie" (have forgotten her last name), a charming young lady in the office, were recently very happily married. Several others, seeing their happiness, have contracted matrimonial fever, according to reports, and contemplate getting "hitched double" in the near future. "Bachelor Hall" is the scene of many conferences, "for" and "against," and that so long happy bunch of woman-haters is a "house divided."

A FISH SUPPER

It was the Rock fish season—a time when they leave salt water and come up the Roanoke River to spawn, and the beauties were being caught and made to grace many a table. These fish are striped the long way and are wonderful in coloring. Fish caught at the right stage have from one to several quarts of eggs, which are sold to the State Hatchery at Weldon at the rate of \$10 per quart, and no wonder people are anxious to catch them. They have no bones except back bone and ribs, and are particularly fine and sweet meat. They weigh from five to 75 pounds or more.

Mr. and Mrs. E. S. Ward had a big fish supper for us, and invited other friends to share it. They were Mr. and Mrs. Miller, formerly of Uniontown, Ala., Mr. Garrett Bunn and Mr. and Mrs. A. O. Pendleton.

Mr. Ward cooked the fish into what he called "Rock Fish Muddle." The name did not sound so good—but oh, Boy! when it got to cooking we had to get away from the kitchen to keep from stealing it out of the pot. Bacon, onions, butter, red pepper and fish, cooked without a drop of water, makes the "muddle," and, like Maxwell House coffee, it is "good to the last drop" and doesn't leave a bad taste.

Roanoke Mills have a dyeing and finishing plant and make colored cotton flannels, stripes, checks and prints, bedspreads, upholsteries, and dobbestries for Simmons mattresses.

Was glad to add O. H. Everett, second hand in weaving (under Overseer J. R. Burton) to our subscription list. He seems to be interested in keeping up with textile progress.

ROANOKE MILL No. 2

There are fine department heads in this plant. J. W. Brown is overseer spinning, and his brother, —. —. Brown, is overseer carding; W. T. Hodges, overseer weaving; J. E. Sullivan and R. P. Blackwelder, second hands in weaving; G. W. Brigman, overseer winding; H. J. Horne, overseer dyeing; E. A. Murray, overseer finishing. J. A. Gray is second hand in spooling and warping, under J. W. Brown, overseer.

Mr. Murray has been with these mills many years. He celebrated his 62nd birthday May 1st, but does not look it. Some folks call him "Old Grouch." They say he never smiles nor sits down on the job. But he did smile when a pretty girl asked him if I (Becky Ann) was his wife, after she had seen me talking with him! She probably got that impression because she saw me "laying the law down" to him! But he got around signing on the dotted line by saying he couldn't get glasses that would permit him to read. He says he "loves all the girls, but only one man—and that is Frank Williams—the best friend I ever had." Mr. Murray's assistant, E. L. Enos, is in the sanitorium.

PATTERSON MILLS

R. L. Towe, secretary; F. C. Williams, manager; A. Meikle, superintendent; W. R. Rogers, assistant superintendent; A. B. McAlister, overseer carding; C. L. Garner, overseer spinning, spooling and warping; Max Higgins, overseer weaving; H. B. Bennett, designer; Curtis Inge, overseer dyeing; Lawrence McKirdy, overseer finishing; J. L. Bell—have forgotten what—but he is a busy man in the designer's office, where there are three desks

Patterson Mills make flannels, dress goods, sheeting, crash and tickings—all good quality and beautiful in design and coloring.

ROSEMARY MFG. Co.

There are among the nicest mills in the State—a place where courtesy and kindness abounds in the office and throughout the mill. E. W. Lehman is secretary; W. S. Dean, cotton buyer; T. W. Mullen, superintendent, assisted by J. E. McGee and L. S. Cannon. Mr. Mullen has been with this mill 33 years and Mr. Cannon 32 years.

Mill No. 1: M. R. Vick, overseer carding; L. B. Crouch, overseer spinning; J. E. Buck, overseer weaving, has a service record of 32 years.

Mill No. 2: Jim Batton, overseer carding; C. H. Speight, overseer weaving, has been here about all his life. C. L. Shell, second hand in weaving. No spinning in No. 2.

Mill No. 3: J. M. Gurley, overseer carding; J. T. Garner, overseer spinning; L. A. Grisson, overseer weaving, has been here 31 years.

R. B. Powell, overseer the cloth room, has a record of 32 years; Geo. Fisher, card cutter. We accused him of "making pills" for drug stores. Really, those cut-outs do look like some kind of medicinal tablets—and no doubt would be about as effective as some of them!

S. D. Brown is supply man and Willis Smith, master

It would be hard to find a prettier place than the grounds about Rosemary Mfg. Co. mills. Beautiful blooming shrubbery, artistically grouped about the office and mills, lovely trees and plenty of them, green grass and clean walks, make one want to linger awhile to feast on the entrancing picture.

It is a real pleasure to visit here, where Mr. Mullen always sees that every courtesy is shown me. Mr. Cannon takes time to show me around, and to help in any way possible to make my visit pleasant and profitable.

ANDERSON, S. C.

Appleton Mill Building a Large Bleachery

Just back of Appleton Mill a large Bleachery is going up. The mill is already so large that a "green horn" turned loose in it would have a hard time finding the way out, and with the bleachery added, complications will be multiplied.

C. H. Strickland, superintendent, is getting along nicely, having fully recovered from a rather serious illness some time ago.

J. L. Rhinehardt, formerly with Manville-Jenckes, Loray plant, Gastonia, is holding down the position of overseer spinning, spooling and warping with his usual efficiency and energy. Mr. Rhinehardt is a very capable man and well liked by all who know him. He went from Loray to become superintendent of Phenix Mills, Kings Mountain, N. C., a position he held for some years, then went back to Loray Mills as superintendent of spinning. Recently he went to Appleton Mills and we found his department in fine order.

L. Z. Humphries, overseer weaving, may be "on a diet" at home, but he must be patronizing the cafeteria, for he is still unable to see his feet, and not because they are "small." Work in this department was going fine.

W. O. McElrath, overseer carding, has reason to be proud of his room. Not many are so nice and clean and so free from flying lint.

J. O. Fowler is overseer of the big cloth room, and S.

M. Heggood is master mechanic. All the department heads are splendid in their lines and it was a real pleasure to visit them.

BURLINGTON, N. C.

BURLINGTON MILLS Co.

There are more than twenty mills in this group, and we hope to visit every one of them at an early date. Mr. J. Spencer Love, the genial president, has assured me that he will be pleased to have me do so. There are three vice-presidents—W. J. Carter, M. B. Smith, Jr., and T. H. Burkhardt. The latter is also general superintendent of these mills and a mighty busy man. R. M. Reid is treasurer; E. H. Wilkins, secretary; C. H. Ginger, buyer, is one of the most pleasant of men.

I had a hard time and a long wait trying to see him recently. There was a long line ahead of me when I sent in my card. I saw a great big determined looking salesman enter Mr. Ginger's sanctum, and presently a pretty office girl came and said: "Mr. Ginger is tied up, but will see you as soon as he can get loose." Before he got "loose". I was tempted to go and see if he needed help, for that was a mighty big man who had "tied him up."

But presently the big man came out looking like a conquering hero, and another and another went in and came out, looking well pleased. When I finally went in, I found Mr. Ginger showing no signs of rough treatment, and he gave me a real heart-warming smile, made the arrangements that I wanted and I, too, came out happy. Mr. Ginger has a wonderfully pleasing personality, and the happy faculty of taking care of duties as they come, and making each visitor feel that he or she is really worth something in the scheme of things.

C. H. Ross, general superintendent of Jacquard weaving division of the Burlington Mills, was formerly with Ranlo Mfg. Co., Ranlo, N. C., and is another very pleasant, courteous and helpful gentleman. When I saw the exceedingly beautiful goods manufactured in the mills over which he has jurisdiction, I found it hard to condemn the thieves who recently stole a truck load of the product en route to Northern markets.

I had the pleasure of adding several leading key men to our subscription list and expect to get more later. J. W. Morton, overseer of preparation; C. J. Ketner, overseer Jacquard weaving; C. E. Ketner, his brother, overseer of another Jacquard weave room; J. L. Owens, general overseer; and G. E. Wimbush, overseer of the fancy silk dress goods weave room in the North Carolina Silk Mill, all signed on the dotted line.

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Denies 2,000 Labor Cases Pending

Greenville, S. C.—Dr. B. E. Geer, president of Furman University and a member of the Cotton Textile National Industrial Relations Board, declared that there is "no foundation for statements that the board has as many as 2,000 cases pending without decision," and added that "the textile operatives are happier than ever before and will continue so if let alone."

Dr. Geer said that he thought a statement attributed to Dr. Robert Bruere, chairman of the board, at the American Cotton Manufacturers' Association convention in Charleston recently, had been misconstrued with regard to the power of the board.

"Of course, under the law, the board has power to act where cases of plain code violation are brought before it," Dr. Geer said. "If operatives who are getting minimum wages make complaints and think they should have more, that is a matter for the mill to decide. We do not have the power to run their business concerns for them. If they are complying with the code, then we have no right to intervene and tell them what to do. This is what Dr. Bruere referred to.

"Altogether, I think we have only four or five cases where the board has taken no action, and these are comparatively recent. We have disposed of cases rapidly when they are brought to us on complaint. Suffice to say that adjustments have been made and mills are operating where complaints were received and investigated."

Dr. Geer said that the board has taken no steps in the Cowpens strike because it has not come up for appeal under the Industrial Relations Board system. "We are familiar with it, however, and if it comes to us we shall take the necessary steps," he stated.

Color Matching By Use of Dye Testers

The ability of expert dyers and dye testers to distinguish between dyeings that seem identical to the average person has been marveled at, but this ability is of little practical value unless accompanied by the knowledge of how they differ. That this is also true of the ordinary visual spectrophotometer is shown in the May issue of Textile Research by Dr. Robert D. Nunting on the spectrophotometric analysis of dyed materials with the M. I. T. color analyzer, invented by Prof. Arthur C. Hardy. Dr. Nutting demonstrates the ability of this color analyzer to detect color differences that are imperceptible to the unaided eye, and that may not be identified by other types of specrophotometers. For instance, in two red and yellow dyeings he notes ability to identify a difference of .0001 per cent of red.

In the same issue of this official publication of the United States Institute for Textile Research is the report of R. L. Steinberger, another Textile Foundation fellow, who is working at Harvard on "Swelling of Cotton and Cellulose Acetate When Exposed to Air at Various Relative Humidities," and a report of the institute's recent conference on "Fabric Wear Resistance and Methods of Measuring It."

Japan Cotton Mills Profits Average 17.7% in 1933

Figures relating to industrial profits in Japan for the second half of 1933 are now available. The net profit of 162 representative companies for the second half of 1933, according to the *Textile Recorder* of Manchester, England, amounted to 8.9 per cent of the paid-up capital. This percentage was largely affected by the low return of 3.9 per cent of public utility companies, while the average of manufacturing companies was 15.2 per cent.

The highest return of all was in woolen textiles at 24.2 per cent and the next in rayon at 23.9 per cent, while cotton spinning concerns showed 17.7 per cent. The latter was the result of the working of ten companies with a total paid-up capital of 203,000,000 yen, on which they earned a net progt of 17,943,000 yen, paying 12 per cent in dividend and putting 31 per cent to reserve, while the seven woolen textile factories with a paid-up capital of 61,457,000 yen placed 47 per cent of their profit to reserve, and the five rayon companies with paid-up capital of 86,550,-000 yen reserved 43 per cent of their net profit.

It is a significant fact in Japanese industry that these 22 textile companies worked with an average capital equal to nearly 1,000,000 English pounds each, even reckoning the yan at today's depreciated value.

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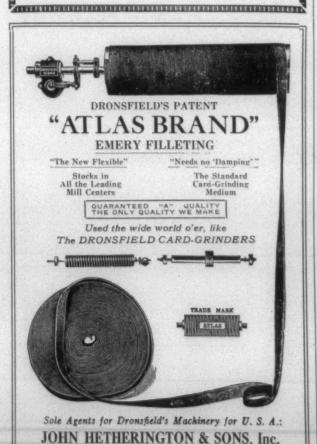
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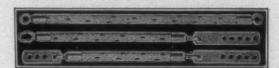
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